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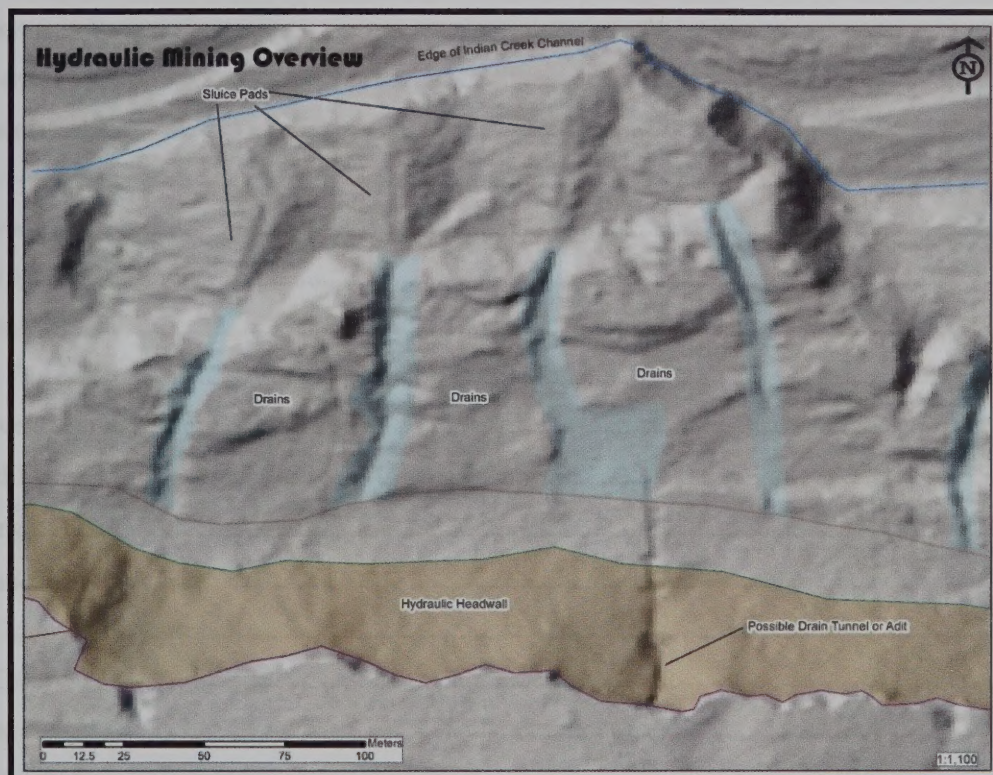


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HISTORICAL ARCHAEOLOGY OF A GOLD MINING DIASPORA, INDIAN CREEK, TRINITY COUNTY, CALIFORNIA



Report by:

Eric W. Ritter and Alden R. Neel

Cultural Resource Publications: Archaeology
Bureau of Land Management, Redding, California
2021



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HISTORICAL ARCHAEOLOGY OF A GOLD MINING DIASPORA, INDIAN CREEK, TRINITY COUNTY, CALIFORNIA

By

Eric W. Ritter and Alden R. Neel

Abstract

Archaeological investigations prompted by a proposed Bureau of Land Management fuels reduction operation led to the documentation of a complex historic placer gold mining landscape and associations in the Indian Creek drainage of Trinity County, California. The mining processes at multiple scales generally were the result of world-wide influences and increasingly efficient techniques applied by various ethnic groups including Portuguese, Chinese, and other European and American workers and supporters. This study helps highlight and interpret the complexity of historic gold mining and cultural interplay in the Northern Mines of California.

Introduction

Forestry health is an important issue to Federal land managing agencies in the American West. Calamitous forest fires, loss of life and natural and cultural resources, degradation of scenic quality, and other issues have necessitated attention to these unhealthy forests and decadent chaparral communities. The Bureau of Land Management in Redding, California has proposed forest health projects in Trinity County and, more specifically, the adjoining Indian and Reading Creek watersheds (Figure 1). Regulations require archaeological assessments. Through field studies, it was not surprising to discover extensive historic gold-mining landscapes coinciding with these forested locations. This report is a discussion of heritage-related discoveries, associations, and historical narratives building on previous archaeological and historical findings (cf. Rooker et al. 2017).

The historic diaspora evident in the California Gold Rush fields and subsequent mining periods within the Sierra Nevada are no less evident in the less known, more remote, and generally longer-lasting Northern Mines of Trinity County and beyond into Oregon. The Indian Creek mines, as extensive, regionally important, and long lasting as they were, are merely a small sector of the extensive placer mining landscapes in the upper Trinity River drainage. Here is a kaleidoscope of workings and other evidence that holds interpretable information on human behavior and lifeways at many levels. Consider this study an early attempt at understanding part of the multi-faceted historic human record in this locality.

Local Environment

This Indian Creek locality within the Klamath Mountains includes a narrow valley bordered by low mountains (Figure 2). The creek's ultimate source is within adjacent, towering Bully Choop Mountain.

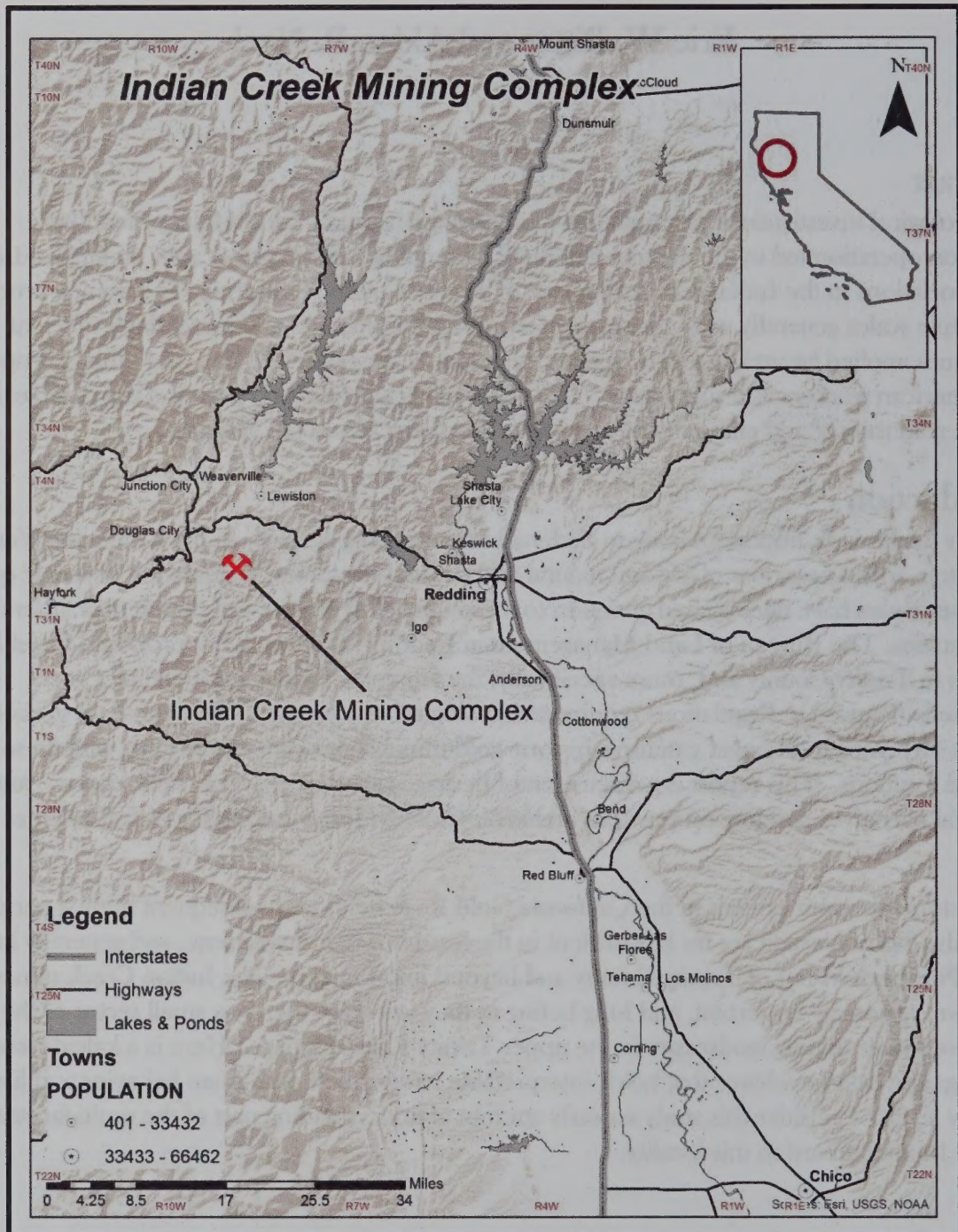


FIGURE 1. Study Area Location Map

The Indian Creek watershed includes nearly 8500 hectares. The anadromous stream is permanent with a sparse riparian strip in the study area bordered by mixed conifer, oak-conifer mixed, and chaparral vegetation communities. The geology is complex with economically important Quaternary alluvial lower and higher terrace deposits, along with areas of various schists and serpentinitized ultramafic rocks. Cool winters with abundant rainfall and dry, hot summers prevail.



FIGURE 2. View of Indian Creek Site Vicinity

Native American Indian Presence

As the drainage name implies, Native Americans or Indians were at one time well established here. Their place in the settlement and mining history is at best ambiguous. Less than a mile from the study location is a known late prehistoric residential location (Nilsson 1990). A Jake Jackson Museum (Weaverville) transcription of a 1972 conversation by Vernon Ray (1983) with old-timers Pearl Clement Bigelow and Charles Clement of the nearby historic Clement Ranch (ca. two miles distance from Indian Creek) reveals some information on local Native Americans during the historic period. One entry is related here verbatim despite some language considered discriminatory by today's standards: "Do you think that Indian camp mentioned in the Carr book was on or near the ranch? Quite likely it was. The Indians used to come there and camp and any

little spot of land that they could land on and the squaws bring wheat and also potatoes after they harvest. They would come in and pick over the ground and the Bucks would go hunting.” Hayfork Nor-El-Muk Wintu informant Ray Patton (personal communication 1996) has indicated that a major Indian trail passed along Indian Creek; that smaller villages were likely along the creek. Mr. Patton also indicated that after the discovery of gold here the native people who remained lived remotely or worked for Europeans. Some Wintu women married white men, while some Wintu worked as “hide hunters” travelling great distances to secure meat for the white men working on the mines. A County record for Permit for Removal and Burial on file at the Trinity County Library in Weaverville lists John F. Abbott, single Indian, died August 14, 1939, born in Indian Creek on June 14, 1856. The 1860 Indian Creek census shows that laborer George Sears from Maine had an Indian wife named Martha, listed as a housekeeper, and Milton Shoemaker, a miner from Illinois, had an Indian wife named Eliza. The 1870 census for the same location indicates that miner John H. Stewart of Maine had an Indian housekeeper wife named Mary Jane with a child named Mary Ann.

Rodgers (1995a:7) relates that one small tin-roofed shack in a tailings field along Indian Creek belonged historically to the son of a Chinese mother and American Indian father. He lived there alone for many years. What involvement this man or his Native American father had in the mining ventures is unknown.

Indian Creek Townsite (Indeek)

During the significant 19th century mining period (ca. 1850-1900), a small-centralized community named Indian Creek, or Indeek, serviced the local miners and settlers. According to Jones et al. (1981:302), “The community included, at one time or another, a store, saloon, butcher shop, livery stable, corral and stagecoach shop” as well as a post office and homes. The *Trinity Journal* of nearby Weaverville (July 30, 1859) noted two hotels, a blacksmith shop, two butchers, and “Heaven knows how many miners.” The same newspaper on July 13, 1859 posted an advertisement stating that Spence & Kellogg, successors to Goeway and Hough, were dealers in groceries, mining tools, provisions, liquor, etc. Rodgers (1995b:20-21) comments that there was a combination restaurant and saloon, and a rather large dance hall here. The terrace upon which this community existed still exhibits foundations, scattered artifacts, and various cultivars such as grapevines and locust and pear trees, as well as largely unmined deposits (at least 15 feet deep) that provide a clue to how much material was removed from the accordant terraces on the other side of the creek. Hanover (1970:15) relates that “Indian Creek is a mining camp and precinct (in 1879), polling from 35 to 60 votes. It has paid richly in former years and there are still some good claims being worked.”



FIGURE 3. East End of the Former Indian Creek Townsite

The Portuguese

The study area is just across Indian Creek from the 19th century town site of the same name. As noted by Jones et al. (1981:302), many of the early inhabitants of the community were Portuguese. Santos (2018) indicates there were three major waves of immigrants to the United States from the Portuguese Azores for economic opportunity: 1800-1870, 1870-1930, and 1957 to the present. Santos (2018) further relates, “Between 1850 and 1860, the number of Portuguese in California jumped from 109 to 1,560, 804 of whom were mining gold in the state’s foothill counties.” Many quickly anglicized their names.

The first record seen by the authors of a Portuguese presence in the upper Indian Creek drainage is an 1855 water right claim somewhere along the creek to C. W. Soule et al. (Index to Miscellaneous Records, Water Appropriations, Trinity County Courthouse). Bartlett (1980:250) states “A location of the waters of this stream was made in December, 1853, the ditch constructed to convey the waters located being still used on what are known as the W.P. Vitzhum Place and the Manuel Rais Place near the mouth of the creek.” There is an 1858 Indian Creek Water Notice (for ditch conveyance) (Table 1) to Manuel Silva and John Davis. An 1860 Water Rights notice (Table 1) by Manuel Francis de Costa and Juan Barrio Bilkor (?) is the next evidence of a Portuguese presence in the study location for carrying Indian Creek water to their workings. Manuel Masier (?) and Masiu Mandor in 1864 sold an Indian Creek mining claim. (Table 1). In 1872, Richard Silcox sold water from Indian Creek to Manuel Rabbitt and Antonio Rodrigues with

a signature by Marcellino Bargas (Table 1). In 1893, John Fratus (Freitas) claimed Indian Creek water for mining and irrigating purposes (Table 1). Appendices 1, 2 and 3 exhibit select County Courthouse original water rights, claims, and proofs of labor including some clearly related to Portuguese miners.

In examining the 1860 and 1870 census records for the Indian Creek district there are a number of single Portuguese men and several families listed. Of the 85 people noted in the 1870 census, 13 were born in Portugal. This is a similar figure to the 1860 census record. One Portuguese wife is listed as a housekeeper, one man is listed as a stock raiser, another as a gardener, and the remainder are designated as miners.

Local mine investor Dr. D.B. Fields (see below) in 1913 filed an Affidavit of Labor on two claims named after Portuguese colleagues, the Duarte and the Rogers (Table 1). The County of Trinity Index to Miscellaneous Records for water appropriations between 1853 and 1901 also lists for Indian Creek Antone Enos's 1867 claim, John Silvera et al.'s 1870 claim, and Frank Silva et al.'s 1878 claim. Noteworthy, as reported by Rooker et al. (2017:25), not too distant (about four to five miles) from the upper Indian Creek mines on Smith Flat along the Trinity River there were Portuguese companies working claims from 1870 to 1872. The Portuguese in at least the 1860 and 1870 censuses also show up in the Douglas City census district that included Smith Flat.

Information on file with the Trinity County Historical Society for some of the noteworthy Portuguese of the study locality includes Frank Rogers (Francisco Rodrigues Duarte). He was born in the Azores in 1843 coming to Trinity County in 1857, settled in Indian Creek, and pursued stock raising and mining. He died in Redding, California in 1923. Antone Rodgers was also from the Azores, born in 1841, arrived in Trinity County in 1862, and eventually settled in Indian Creek as a rancher. He died in Indian Creek in 1914. The 1860 census lists Francisco A. Silva in the Indian Creek District, age 40, occupation miner, born in Portugal. He does not show up in the 1870 census.

Rodgers (1995a), of Portuguese descent living on the Rodgers Ranch on Indian Creek from 1917 to 1933, described a few Portuguese households/farm-ranches in upper creek locations. These included that of his own family, the Manuel Guillermo (Williams) family place, the Antone Rodriguez Duarte (Rodgers) Ranch, the Frank Joseph Ranch, and the Antone Fratus Ranch. These were all of economic necessity farming, ranching, and mining-oriented families.

The Chinese

Hanover (nd.:122) indicates that a few Chinese made their way into Trinity County as early as 1851, but they did not come in large numbers until 1853 and 1854. As indicated in Table 1 and Appendix 1, there is a water rights/deed record of a transaction regarding Indian Creek between David McMillen to a Chinaman named "Ache" in 1855. We suspect this transaction regards a location along Indian Creek closer to its mouth near the Trinity River where river operations by Chinese companies were prominent during this time. The newspaper in nearby Weaverville, the *Trinity Journal*, on July 30, 1859 relates that many miners of Indian Creek "...employ Chinese labor..." Hanover (n.d. 123) relates, "The white men, who were out of work, talked about running the Chinese out, as some of them held good claims". The *Trinity Journal* for June 20, 1874 states,

“There are about one hundred men—including Chinese—mining in that section, and all are doing well.” Hanover (n.d.:125) notes that in 1880 there were 80 Chinese at Indian Creek. Archaeologically, our investigations led to the discovery and documentation of a small Chinese mining operation discussed below and in print (Ritter and Neel 2019) (Figure 4). Furthermore, the Tree of Heaven (*Ailanthus altissima*), introduced early into the West by the Chinese, can be found in the flatlands of the project area.

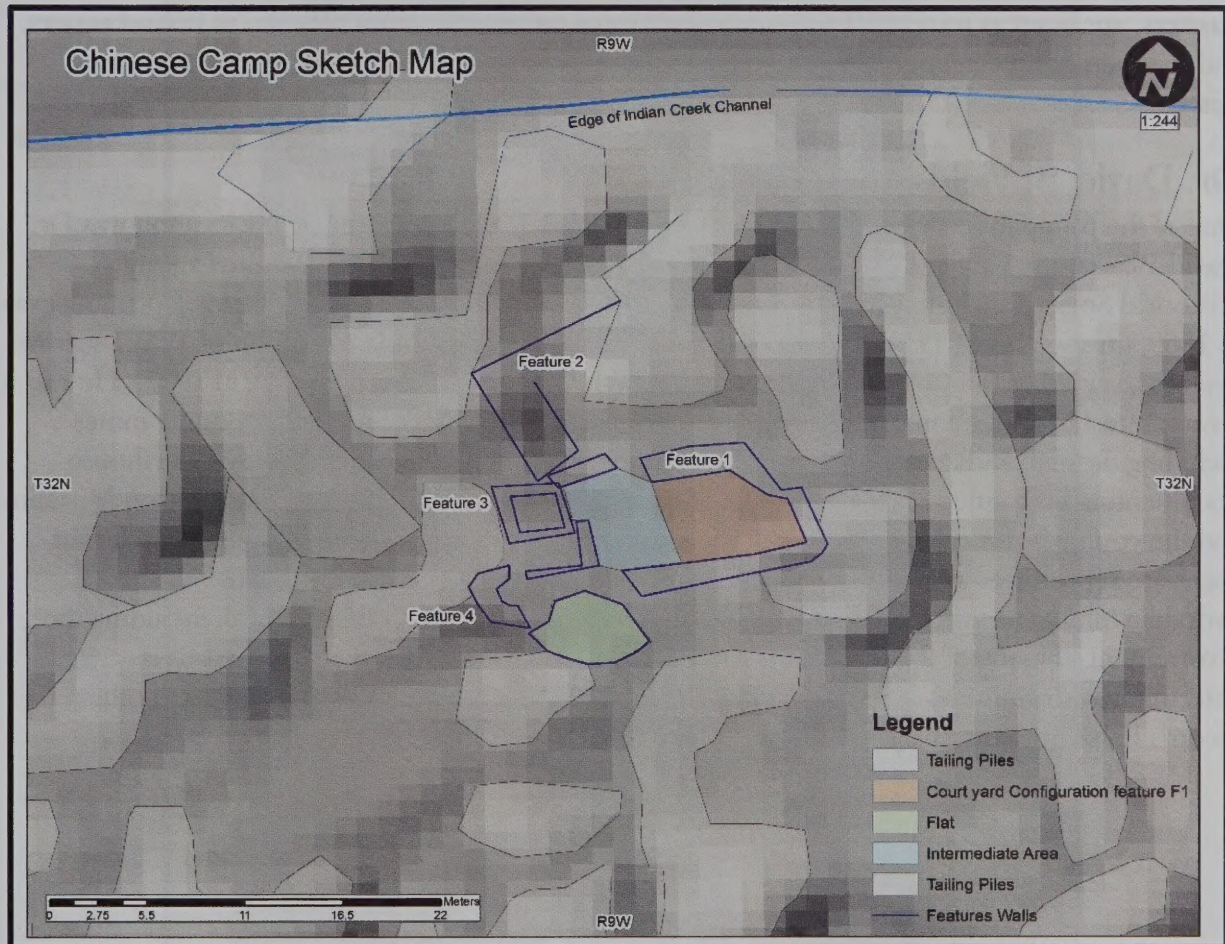


FIGURE 4. Chinese Work Camp Map

Indian Creek Census Data

While it is clear that there was a sizeable Portuguese presence in the Indian Creek vicinity, people from many locations in North America and beyond were also present as evident in the census records examined for 1860 and 1870, years of considerable local mining and landscape transformation.

In the 1870 census record for Indian Creek, 85 people are listed of which 41, or nearly half, were born outside the United States. Thirteen were born in Portugal, 10 in Ireland, six in Germany, four in Italy, two in France and two in Canada, with single individuals from Norway, Switzerland, England and Scotland. Western Europe is well represented. American-born individuals include nine from New York, seven from Pennsylvania, three each from Illinois and Tennessee, two from

Maine, two from Missouri, and single individuals from New Hampshire, Vermont, Wisconsin, Ohio, Virginia, Alabama plus California-born children and one Native American. In this respect, among the Americans, the Northeast and mid-west Yankees predominant with some post-Civil War Southerners less represented. There are six families present, seven women and six children living on Indian Creek.

Not unexpectedly, the 1870 census shows that 57 of the 79 adults enumerated, nearly three-quarters, are listed as miners. The remainder, where listed, include the women as housekeepers, and the men as hotelkeeper, trader, butcher, laborer, rancher, merchant, gardener, and stock raiser.

Dr. David B. Fields, the Investor

One of the prime movers in the early 20th Century mining activities in the study location was Dr. David Blackstone Fields (Figure 5). According to records on file with the Trinity County Historical Society, including a 1968 note written by his son, John Fields, Dr. Fields, born in Texas in 1869, finished his M.D., came to Weaverville in 1900 and, with the exception of WWI service overseas, served as the County physician and Health Officer for 32 years, dying in 1937. He had a great interest in gold mining and was an owner or associated with many Trinity County mines including those in Indian Creek. There are many records on file with the County Courthouse documenting his mining-related activities. Furthermore, the Trinity County Jake Jackson Museum and the county historical society hold many ledgers related to his undertakings. Select relevant pages are reproduced (Appendix 4). These provide many insights into the extensive later hydraulic mining ventures in the upper Indian Creek drainage (and other doings), including the involvement of many of the local Portuguese inhabitants. One difficulty in his records is determining which mines are associated with which entry. However, comparisons with other records helps limit the ambiguities.



FIGURE 5. Dr. David B. Fields, Mine Investor, Early 1900s

The 1908 ledger has a note indicating that he “Bought Ink Mine, Sept. 27-05’ with the following names listed: Geo Westmorland, Jn Thomas, Ja Rodgers, F. Rodgers, F. Cordoza, A Rodgers, and John Williams. This almost certainly was the Indian Creek Mining Company of which there are many records, and most likely holdings of the local Portuguese colony. The individuals listed

may have been the owners of the company, and ledger entries demonstrate payment to some of them in the following years for labor expenses with a clear mine connection. Some examples follow.

In a 1905-1907 ledger (Appendix 4) under a page for the “Indian Ck Mine-Hydraulic” there are 50 entries including payments to John Williams, Frank Rodgers, and Frank Cordoza from the original mine sale as well as other sales. There are also costs for “Giant bolts” (for a hydraulic monitor?), telephone, “labor for removing pipe”, lumber, and taxes. There are three entries for “Gold Bullion” or “Bullion” amounting to \$257.65, \$361.67 and \$2905.67. Comparing that combined value from 1906 with 2017 values indicates a yield of \$92,600.00. Moreover, this figure may be higher based on other entries. A ledger entry for 1902-1905 illustrates dealing with the well-known Selby Smelting and Lead Company in San Francisco, probably for gold sales and, possibly, assay work.

Fields apparently bought economically productive gold-bearing alluvium. One of the previous owners is discussed in the January 27, 1900 *Trinity Journal* in this regard. “Last Saturday H. M. Hall, one of the owners of the Indian Creek Mine, brought in a handsome cleanup from the mine. It amounted to several thousand dollars more than expected, and made a very acceptable holiday greeting to the owners of the property.”

The Portuguese Rodgers family seems to have played an important role in Dr. Fields mining investments and operations. One page in the 1906-1909 ledger has Frank Rogers as the heading. The Indian Creek clan (cousins and one son) are listed 23 times on ledgers dating from 1905-1909 and again from 1919-1921 with no ledgers in-between these dates examined. On the ledger pages checked for the above dates, there are other known or likely Portuguese names or relatives including John Williams who married Mary Rogers, daughter of Antone Rodgers. In the Rodgers manuscript “Memories of Indian Creek” (1995a [1920]:6), it indicates that Manuel Guillermo changed his last name to Williams. A 1921 entry shows a payment to Manuel Williams. John Williams has a ledger page from 1906 with his name as the heading and another entry with “flume” written adjoining. He furthermore shows up in another 1906 ledger, and in a 1920 and 1921 ledger he is listed along with his wife Mary and son Rodger Williams. Other Portuguese men registered in the Fields’ ledgers where the surname appears original are the aforementioned F. Cordoza (1905, 1907), Tony (Jony) Silva (1907, 1909), perhaps Reed Latin (1907), and John Fratus (1909). A number of these individuals as evident in ledger entries also worked on other Indian Creek mines more distant from the study focus including the hard rock Point Lookout Mine.

Rodgers (1995a:19) notes that as one enters the Indian Creek valley from the west there is encountered a ground that was once the site of the mine buildings for the Fields Mine. This is possibly in part the earlier patented Cacy Placer Mine described below. Rodgers states that “As late as the 1930’s, although the mine had long since ceased active operations, there still stood an office building, a cookhouse and dining hall, and a large bunkhouse. A well-kept residence for the mine superintendent was located about a quarter of a mile away.” According to Rodgers (1995b:3), the Fields Mine was re-used during the Depression. Rodgers (1995a:20) relates that Dr. Fields apparently never personally conducted mining operations; he leased the mine to various operators

for many years with a substantial payroll. One of the Fields' possible building remnants was recorded during the authors' work. It is described below in the Material Goods and Features section.

Water Control

One of the obvious necessities for successful gold placer mining is water, especially when areas away from streambeds were mined relatively soon after the initial Gold Rush. Archival records are plentiful in this regard for the Indian Creek locality (see Table 1 and Appendix 1), and ditch and penstock conveyances, dam and reservoirs, drains, as well as mined ground all attest to extensive water use for decades (see Figures 6 and 7).



FIGURE 6. The Silva Ditch (10 cm Interval Meter Rod for Scale)

The Trinity County legal records for water rights and notices start in 1851. In 1853, water from lower Indian Creek was claimed for working along the Trinity River. A.J. Sloper & Co. in 1855 filed for “six sluice heads of water taken out by ditch on Indian Creek ½ mile below the Forks” within the study area. It is noted that the race had been in operation since 1853. Various water rights records are on file for Indian Creek for the 1850s through the 1890s for mining and



FIGURE 7. Penstock Remnant (Tailings in Background)

agricultural purposes (Table 1 and Appendix 1). On May 5, 1858, Joseph King, John Davis and Manuel Silva (a company) claimed “for mining purposes ten sluice heads of water and the ground necessary for conveying the same to be taken out of Indian Creek...” Another example filed by local land and mine owner James A. Johnston (May 1872) was for “the water running in the south fork of Indian Creek...through a flume 30 inches wide and 2 feet deep and ditch 36 inches wide and 2 feet deep...”

The local Weaverville newspaper (*Trinity Journal*, February 7, 1874) stated “Indian Creek—Billy Waldorf says there is not much news over there, that water is plenty, and miners working so hard they haven’t time to do anything else.”

The dams and ditches required maintenance that is evident in various affidavits of labor on mining claims on file with the Trinity County Courthouse (Table 1, Appendix 3). For Instance, in November 1903 H.M. Hall claimed \$100.00 expenditure on behalf of the Indian Creek Mining Company for “work on dam and ditch.” On December 31, 1913 D. B. Fields filed his affidavit for various mines, including the Indian Creek “...that said labor and improvements consists of running tunnels and open cuts, sinking shafts, building dam, at head of ditch on South Fork of Indian Creek, cleaning, repairing and extending the Indian Creek Ditch....”

Rodgers (1995b:20) relates that water for the later hydraulic mining in our study location was provided by two extensive ditch systems, one from the North Fork and one from the South Fork of Indian Creek. These extended to the Fields operations. “However, hydraulic operations from other mines extended and reached back farther until they eventually wiped out the Fields ditch. Evidence of this can still be seen in the series of high red banks....which mark the farthest extent of the hydraulic mining.”

The Cacy Placer Mine

Amid the study zone is the 65-acre Cacy Placer Mine (Mineral Survey 403) patented in 1875 to James A. Johnson (also a holder of a nearby-patented homestead), J. C. Wallace, James Benton, James Morris, and Louis Steinmaller. The mine was presumably named after Margaret Cacy, later wife of James Johnston. It is noted as situated in the Indian Creek Mining District. Only Irishman James Morris shows up in the 1860 and 1870 Indian Creek censuses along with his family. The axe man on the 1875 survey team was A. Manuel Soldier Meshatha, likely a local Portuguese employee. The plat (Figure 8) shows Johnson’s house, Indian Creek, the Silva Ditch, and a wagon road, all listed in the survey notes with the exception that the survey notes refer to the Silver Ditch. The wagon road is noted as running between Indian Creek and Douglas City, and bearings are made to the Silcox Quartz Mill and a storehouse in the town of Indian Creek.

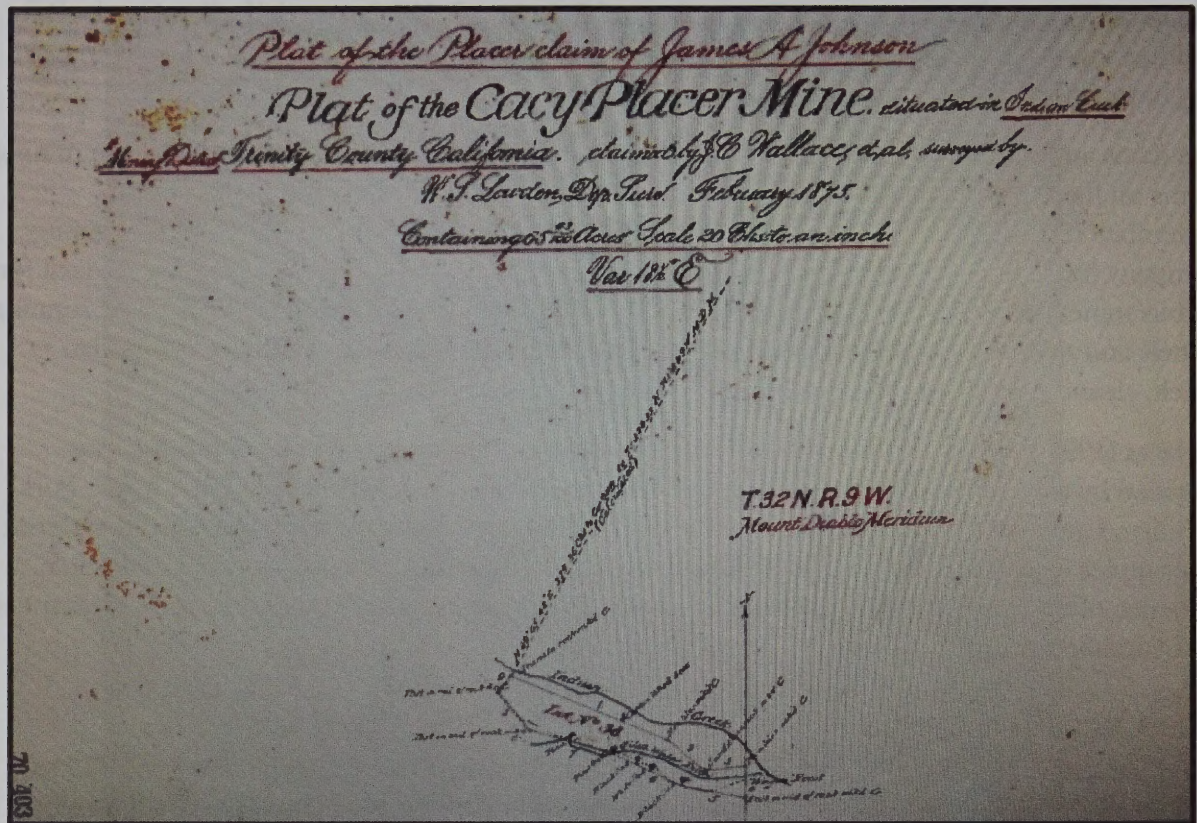


FIGURE 8. Cacy Mine Plat

There is some confusion between the plat and the notes. The former designates the ditch Silva, while the notes list it as the Silver Ditch. Both Francisco Silva and Manuel Silver show up in the local 1860 census. Five Portuguese men with the last name Silver show up in the 1870 local census. The County Map of 1915 on display at the County courthouse shows a Silva Ditch in this mine's vicinity. The 1950 Weaverville USGS 15' Quadrangle illustrates an abandoned ditch agreeing with the County Map location, above the Cacy Mine property. The ditch shown on the Cacy Mine plat may have held both names. In any case, this ditch is no longer present in the Cacy mine vicinity having been mined away, while the higher ditch is designated the Silva Ditch. Moreover, we have seen the above D.B. Fields record for work on the "Indian Creek Ditch". The Silva Ditch (perhaps also the same Indian Creek Ditch) origin within the South Fork of Indian Creek may be the same as the earlier ditch diverging to a higher position in later times.

In the Cacy Mine survey notes, it is stated that the northeast side of the patent was claimed by "Portuguese" (names not known), and the western side by a small garden and "exhausted mining land." The other sides include the creek and mining land of unknown owners. Later, Dr. Fields claimed the land to the north for a quartz mine. The notes also report labor performed included "cutting a ditch to work the mine "which ditch has cost not less than five hundred dollars." A BLM report (1970) states "The Casey Placer tested out at 40c a yard; so promising that a huge dredge for 3500 post-bellum dollars was brought in, on packs." We are uncertain what size dredge or type of equipment is being discussed. There is a record of a dragline dredge in our study area operating well after the Casey Mine was active. O'Brien (1965:96) reports that the Hayfork Gold Dredging

Company operated a dragline dredge for a short time in 1939 along the creek in our study location.

Indian Creek Mining Complex Feature Descriptions

In the following section, this vast mining landscape is described by ground features and presumed mining techniques. The complexity of the mining landscape as illustrated in Figure 9 demonstrates a history of variable and sometimes overlapping mining techniques. This section does not get into a detailed description of every feature.

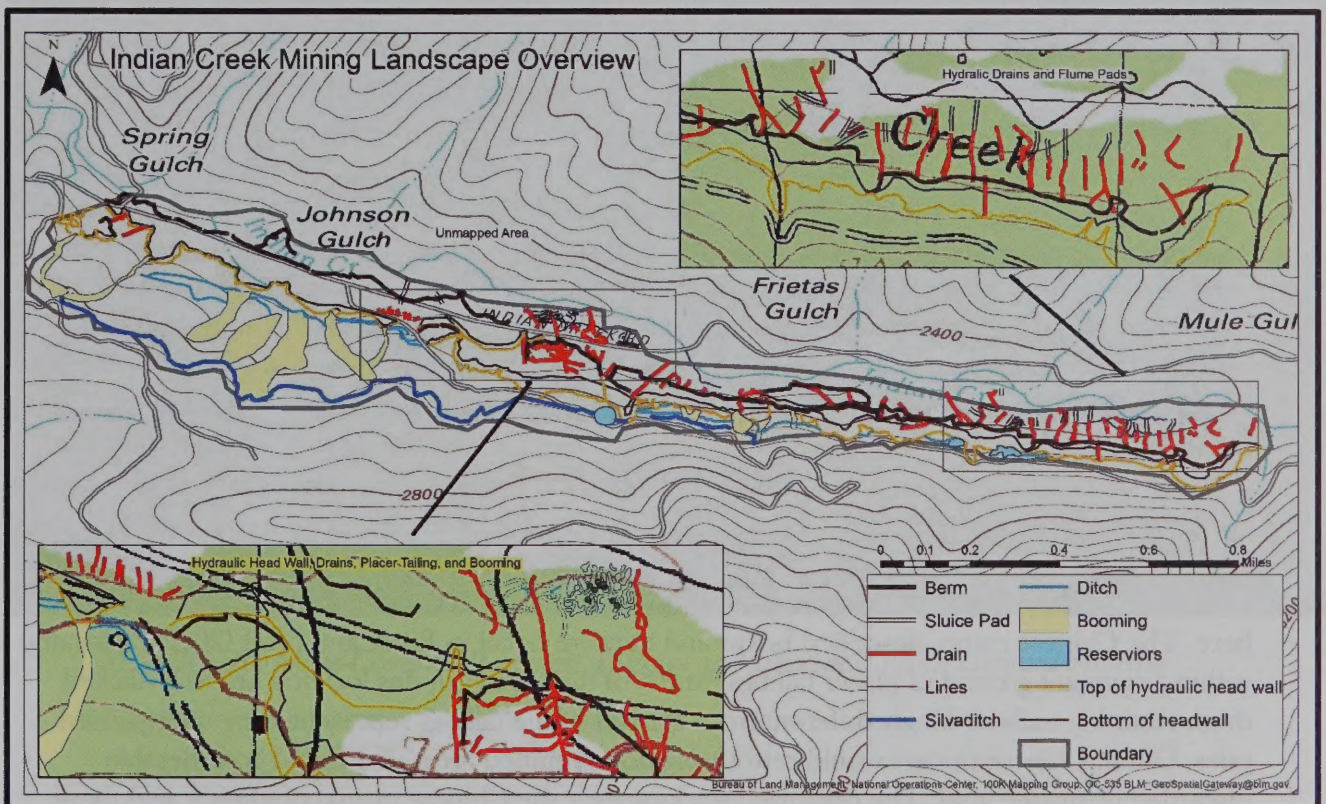


FIGURE 9. Map of Major Mining Features

The footprint of the Indian Creek mining complex measures 2 miles (3.2 km) in length E/W by 0.5 miles (0.8 km) N/S wide on Bureau of Land Management land and interspersed private land alone. Placer mine evidence continues onto the north side of Indian Creek and in other sections of the valley. Mining features run parallel (east/west) to Indian Creek. Generally, there appears to be four distinct mining extraction methods present all of which occur throughout the locality and overlap temporally and spatially. We suspect that the creek was hand-worked and manipulated with recovery by pans, rockers, and long toms, but evidence of such activities has been destroyed through flooding, erosion, deposition, and later mining endeavors. Stacked alluvial terraces on both sides of the creek were an area of focus soon after the first labors within the creek bed itself.

Gold extraction methods included placer mining of Indian Creek gravels, adjacent banks, and terraces; large scale uniformed hydraulic mining, and booming and rushing of natural drainages. The most important aspect to all extraction methods was water, the directional movement of water, and water pressure. Water conveyance systems are abundant and are found throughout the mined area. In some cases, ditches were abandoned, and those areas were hydraulically mined. Different mining techniques are manifested in multiple layers of tailings, drains, ditches, working areas, and headwalls. New extraction methods cover or displace older endeavors creating a complex landscape.

Ground Placer Mining Operations and Chinese Camp

Substantial ground placer mining was the first mining method that was performed in the watershed. This method was the manual extraction of the sands and gravels from their beds and then washing the material in pans, rockers, long toms, and sluices, and recovering the gold. Once the easy gold was gone in the creek, the lower creek terraces and secondary lower drainages were worked. The remains of these actions are hand stacked and unsorted piled boulders. This can be seen in the moss-covered tailing piles (Figures 10 and 11). Such tailings are formed when washed cobbles and boulders are too large to be easily moved by the sluice water. They are manually thrown out or are vertically stacked or piled creating strings of stone-lined, shallow water drain channels, and retaining walls (Lindström et al. 2000) (Figure 11). These existing tailing piles and cut banks are remnant features of a much more extensive operation, including the patented Cacy Mine discussed above. Many of these features were likely destroyed by later hydraulic mining and flooding. There were stretches of the creek that were filled with mine tailings until floods washed them out. The flood of 1861-62 washed out a 2-3-mile blockage of mining material that lay in the creek bed (BLM 1996:33), but as hydraulic mining continued, more debris was washed into the drainage system. Based off LiDAR data (Figure 12), there are 23 acres (9.3 hectares) of remnant tailings associated with ground sluicing operations within the Indian Creek mining landscape under study here. The Chinese camp, described below and in more detail in Ritter and Neel (2019), is located within a remnant ground of placer tailings. Much of the tailings in this location are well-stacked drain retaining walls strikingly different from the rest of the tailings represented by unorganized piles. Often, Chinese miners would rework previously mined areas and found considerable discarded or missed gold. The organized stacking near the Chinese camp could indicate these large unsorted tailings were reworked.



FIGURE 10. Moss-Covered Remnant Tailings and Channels From Ground Sluicing



FIGURE 11. Tailings' Sluice and Drain

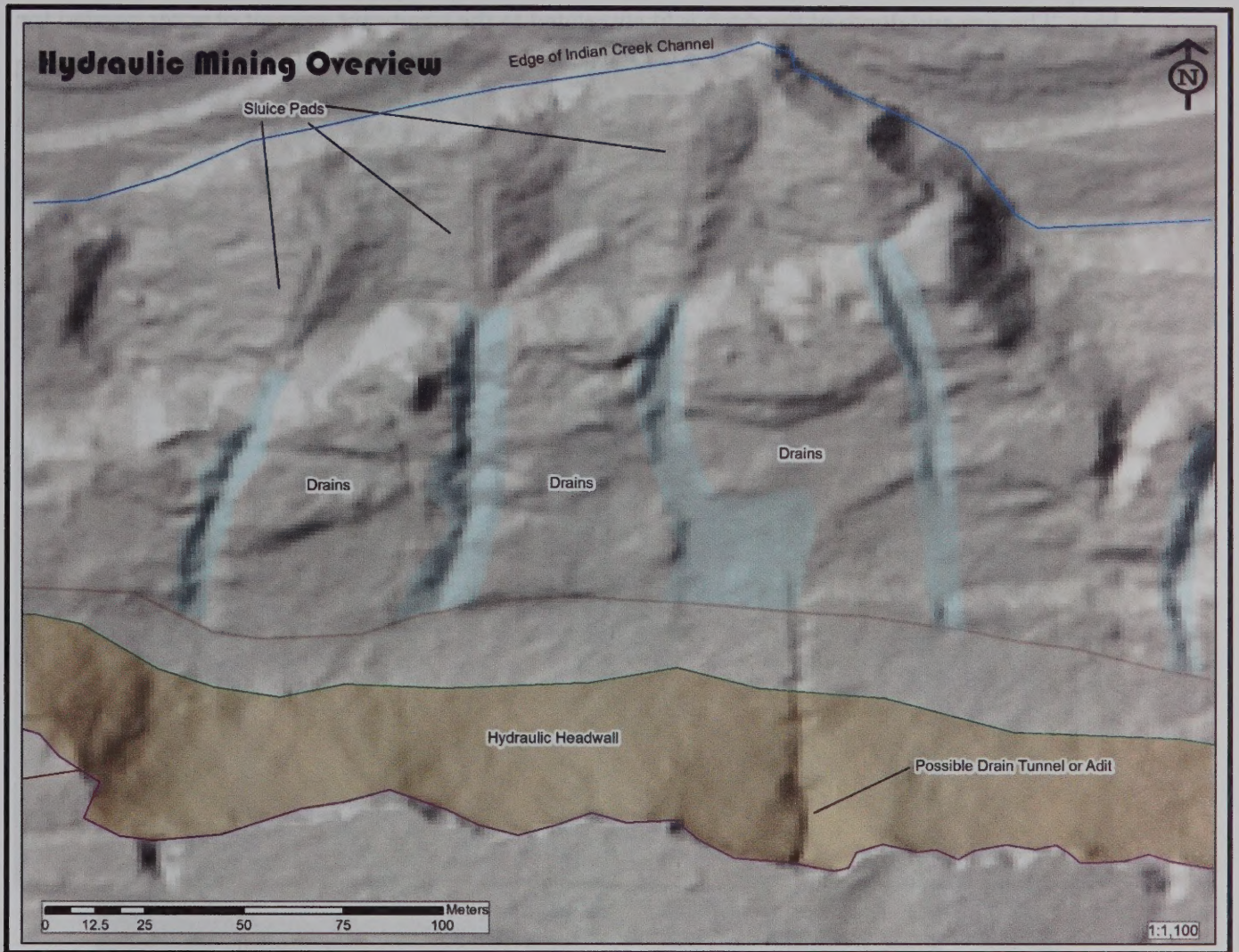


FIGURE 12. LiDAR Image of Hydraulic Mined Landscape

Booming

Booming is simply ground sluicing on a large scale and, instead of a constant stream of water, a huge release from a reservoir and/or ditch provided the force to dislodge and wash the gravels into sluices. The exposed bedrock also caught heavy gold particulates. These locations were subsequently cleaned of gold. Requirements for booming include reservoirs (and blockage of flow in a large ditch) to build up enough water volume to create a force to dislodge material. At the Indian Creek mining complex, booming was employed on the eastern side of the complex. These areas have limited topsoil and the drainages are entrenched 10-30' (3-9 m) down to the bedrock with limited current vegetation growth (Figure 13). The booming activities cut through earlier ditches associated with ground sluicing. The total area mined by booming includes approximately 22 acres (8.9 hectares) on the eastern side of the site. The highest Silva Ditch had four reservoirs that would have been used to build pressure for both hydraulic canons and booming. The ditch itself was engineered to hold a significant amount of water. In some areas, the ditch is 7-8' (2.5-3 m) deep with a 10-12' (3-3.7 m) high berm as measured from its downslope top to its downslope

base. The size and depth of the ditch is likely related to the significant amount of water needed for booming. Much of the Silva Ditch has been destroyed by the booming endeavors or simply from neglect, blowing out near weakened booming areas. At the bottom of the drainage where it meets flat ground, constructed berms funneled the material into a drain where there was likely a sluice or other arresting material placed to trap gold. According to Bowie 1885:81-82),

“When they have reached the level ground, too, there is still another labor awaits them: trenches, known as ‘apogae,’ have to be dug for the passage of the water, and these, at regular intervals, have a layer of silex placed at the bottom. This silex is a plant like rosemary in appearance, rough and prickly, and well adapted for arresting any pieces of gold that may be carried along.”

Below the drain/apogae/trench, waste rock and sluice cleanout debris are deposited.



FIGURE 13. Channel Created by Booming and Sluicing

Hydraulic Mining

At the Indian Creek mining complex, hydraulic mining was used extensively. This is evident on the landscape throughout the investigation area. Through the same age class of mixed conifer forest, hydraulic features can be found such as headwalls, ditches, berms, sluice pads, tailing piles, lateral ditches, and drains (Figure 14). One large Douglas fir tree growing on an upper mining feature is 90 years B.P. based on a tree ring count. Adding some years for re-sprouting following mining suggests an early 20th century date.



FIGURE 14. Typical Drain from Hydraulic Working (Alden Neel in photo)

The upper terrace gravel mining at Indian Creek is uniform which suggests that a single company, such as the D.B. Fields operation, conducted most of the higher hydraulic mining. A lateral ditch brought water down to the headwall off the large Silva Ditch. The drop from the top of the headwall to the working area is what fed the hydraulic monitor with pressure. A typical work area is small with an average width of 140' (43 m) below and parallel to the head wall. The work area is where the hydraulic monitor would be excavating material to expose rich gravel deposits. These work areas together have built a lengthy headwall (Figures 15 and 16). On the edge of each work area there are built-up berms or unmined areas. These berms acted as a huge diversion funneling water into large drains. These drains likely had grizzlies and initial sluices to filter out large debris and gold. The debris that was not washed down the drains was extracted and piled on the sides of the drain creating large unsorted boulder tailing piles. The sands and gravels were washed into sluices for finer sorting located downslope on the remnant river terraces where they were situated on built-up pads that allowed for the fines to be extracted/filtered out before the water was dumped back into Indian Creek (Figure 17). This large-scale hydraulic mining system occurs along 1.4



FIGURE 15. Hydraulic Mining Headwall Above Indian Creek



FIGURE 16. Slumping Along Hydraulic Mine Headwall



FIGURE 17. Berm for Water Diversion and Higher Ground Mine Activities

miles (2.3 km) on the eastern side of the complex and runs parallel to Indian Creek. A small head wall runs further to the west for one mile (1.6 km), which could indicate an early hydraulic variation, or the ground sluicing is leaving a similar appearance. An oval tunnel was found within a headwall measuring about five feet high and three feet wide, possibly for drainage (see Figure 12; Affidavit of Labor description for D.B. Fields 1913 operation—Appendix 3).

The Indian Creek Mining Complex might not have the colossal exposed headwalls with associated larger working areas and huge tailing piles one would associate with a significantly larger operation such as the Sierra Nevada's Malakoff Diggings and Cherokee Mine. Nevertheless, this complex is still massive. According to historic accounts (*Trinity Journal* June 20, 1874),

"The gravel mines of Indian Creek and vicinity are among the richest in the county, and about the hardest to work. The creek bars, to which the mining is confined, lay on a level and in some instances below the bed of the creek, and are exceedingly rocky. Worked under attending disadvantages, they all pay largely, the yield to the ton of cubic yard of earth probably averaging larger than in any other district in this county. In fact, it is an absolute necessity that the gold must be plenty, or the slow manner in which the low bars have been worked would not pay expenses, let alone affording handsome profits to owners which they do."

Following Bartlett (1940:250), "The Values of the gold both from placer and quartz mines on Indian Creek are interesting. Whether it be fine or coarse, all gold found on this stream has been of very high minting value." These historic accounts for gold production of Indian Creek reveal the magnitude of earlier episodes of mining, with extensive work to follow on a grand scale. Early methods focused on exploiting the lower river gravels and through "working the creek" and ground sluicing the adjacent river terraces. The upper gravel beds were worked by booming and hydraulic mining, and the tenacity to which the upper gravels were mined suggest those upper gravels were also rich, economically exploitable with the later hydraulic processes and investor interest.

Material Goods and Features

Historic material goods found scattered within the mining complex help to understand the chronological sequencing and dating of mining techniques and activities. The Chinese camp and associations are discussed below. Other areas of the landscape included scattered surface artifacts and foundations indicating an early 20th century cabin, perhaps part of the Fields operations, and miscellaneous finds mostly associated with water control. A White's 6000/Di PRO SL metal detector was used sporadically in areas of the site, especially on flats and around reservoirs and major ditches, at the cabin pad, and within the Chinese camp.

The west end of the complex includes a road trace and earthen-berm reservoir as well as placered ground. Ferrous strap fragments, a triangular file, and common cut and wire nails in the 8d to 20d size were noted. The wire nails were associated exclusively with the reservoir suggesting it dates to the early 20th century.

On the upper east end of the complex near the Silva Ditch and a small reservoir there was found scattered common cut nails in the 10d to 16d size with one 40d nail, perhaps from sluice box or self-shooter construction. A ditch diversion into a side ditch contained large wire nails, probably part of a diversion feature for late mining. An axe blade used as a wedge was also noted. Artifacts suggest later 19th century-early 20th century uses based on nail chronology (Wells 1998).

A lower slope area toward the east end of the complex included 16" and 32" diameter penstock remnants, a tobacco can with lugs and bale (6 ¼" height x 6" diameter), two evaporated milk cans 2 15/16" diameter by approximately 4 ¼" height (ca. 1885-1903 dating according to Simonis 1997), and a larger rectangular soldered seamed metal 2 ½ gallon container.

A rectangular walled feature was noted on the lower slopes of the mining complex on the opposite side of the valley from the Indian Creek townsite (Figure 18). This structure is 8 ½' to 9' in length on its sides and about 4' wide at the rear. The wall height is between 2 1/2' and 3 ½' composed of unfinished cobbles and boulders with a possible gravelly mud mortar. Around this feature were found wire nails in the 7d and 20d size, a common cut nail 8d in size, scattered tin sheeting fragments, a large broken ferrous leaf spring 2" wide, a miners pick end, bailing wire, a machine-made can 5" height by 5" diameter punched out at the base for sieving, and two broken ferrous metal bar pieces 7/8" wide by 1/8" thick. This feature was likely a work structure circa turn of the 20th century in age.



FIGURE 18. Rock Structure Circa 1900 of Unknown Use (10 cm Interval Scale)

A sluice channel near the current creek alignment is 6' across and 2' deep lined with boulders. Both common cut and wire 7d to 20d nails were found in association. One 10d machine cut finish nail was also found. It appears that at this location sluice boxes were dismantled or repaired during the late 19th to early 20th century. In addition, at this spot auriferous gravels were being processed from higher workings.

A dump area above a headwall on a mined tread held a variety of artifacts from domestic and construction-related activities (Figure 19). Included in the scatter are a whip saw blade (6 ½' long), ferrous chain link, Pioneer Guaranteed Pure Baking Powder can (4" diameter lid), 4 ¾" long carriage bolt, several ferrous metal scraps and cut metal bars, common cut and wire nails (8d-20d), a galvanized tin sheet, heavy ferrous metal brace, metal bar 1" diameter by 5 3/8" length, machine made can with screw lid (7" length by 4 ¼" diameter), leather collar (4 ¼" by 4"), and a key-opened can fragment. Interestingly, a small clear perfume bottle base (1 ¼" diameter) with recessed embossing in an oval including NEW YORK, a monogram (JSC), and partial lettering TA...was recovered. The top is missing (Figure 20). This is a Henry Tappan perfume bottle with the company in business from 1880-1909.

(<https://cleopatrasboudoir.blogspot.com/2014/01/tappan-perfumes.html>). This scatter appears to date to the turn of the 20th century.



FIGURE 19. Dump Area of Later (ca. Turn of 20th Century) Mine-Related Activities

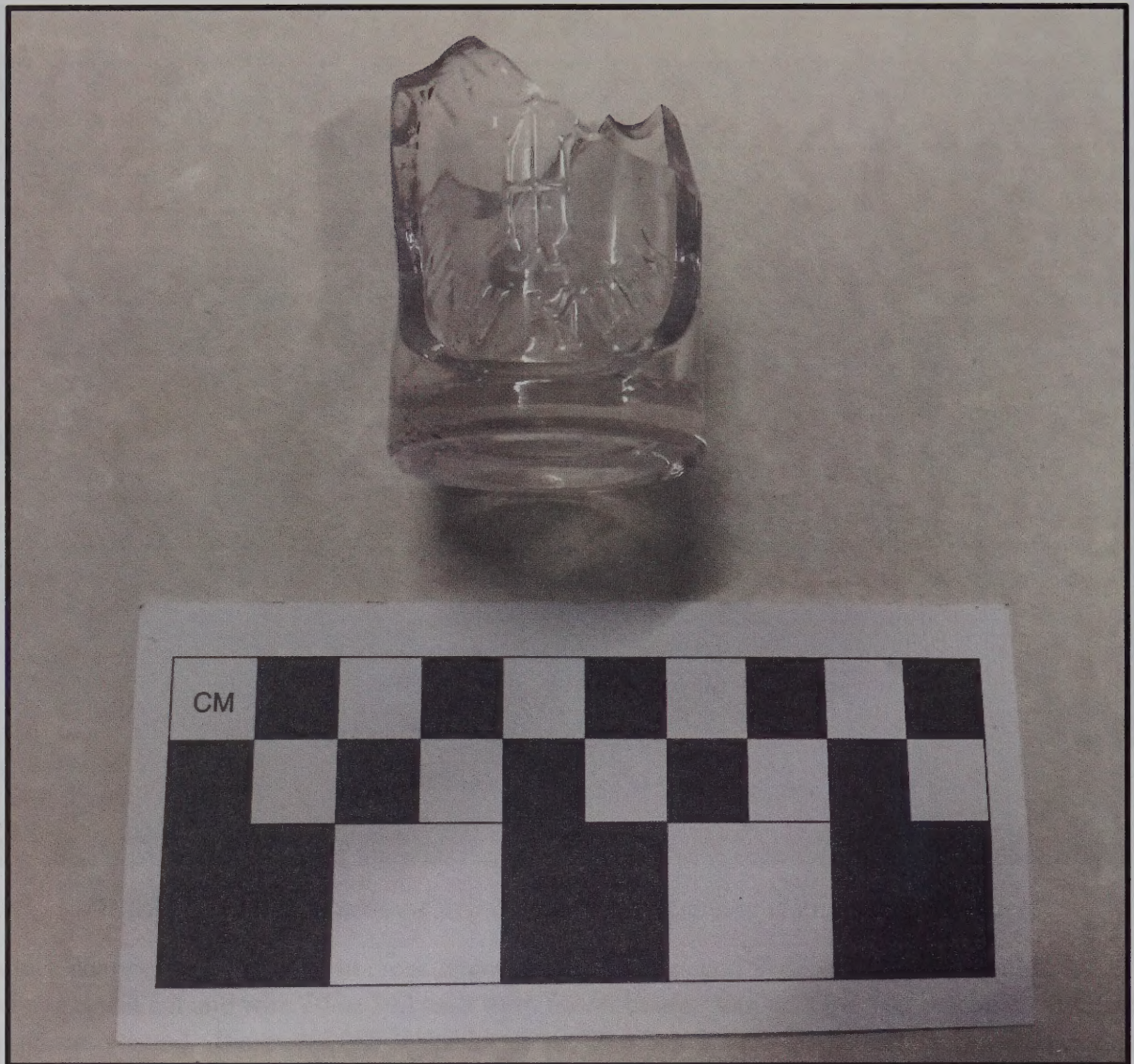


FIGURE 20. Henry Tappan Perfume Bottle

Dispersed throughout the complex are various sections of surface and partially buried penstock of varying diameters (10", 18", 32", and 36") and a ferrous penstock coupler 10" in diameter. There was also a 2 ½ gallon rectangular can near the upper workings and a cut ferrous spike at another location in the tailings.

On the flat that was likely the Fields work camp and residential complex location, there is a foundation with footing stones and scattered artifacts of an early 20th century residence, probably from at least the 1930s and a decade or two earlier (Figure 21). Artifacts include various sanitary food cans, a leather boot, a Model A (?) car part, ash bucket lid, wire nails, window glass, coffee cans, stove pipe, tobacco can, an early beer can, evaporative milk can of the 1917-1929 age (Simonis 1977), Hazel-Atlas marked canning jar with presumed 1934 manufacturing date, and other canning jars and artifacts. It is possible this cabin area dates to the locally recorded Depression-era mining.



FIGURE 21. Documenting Early 20th Century Cabin Debris

Chinese Camp

A small (less than one acre, 21 m across) complex of walled compounds, foundations, boulder-buttressed flats, tailings, and mine drains was found within the larger Indian Creek mining landscape. Associated artifacts indicate this is the vestige of a Chinese placer mining enterprise. Scattered surface artifacts are strewn over the complex. Limited metal detecting and surface scrapes suggests sub-surface artifacts are present in numbers, but not to any depth.

Nine settings were defined and have been mapped (Figure 4). These include, (1) Compound/Feature 1; (2) Intermediate area between Feature 1 and other features; (3) Feature 2; (4) Feature 3; (5) Feature 4; (6) flat adjoining structures; (7) west side of complex; (8) south side of complex; and (9) immediate vicinity of previous listed settings (within 50 meters or thereabouts). Remnants of placer mining operations beyond these defined settings merge and continue for hundreds of meters.

The centerpiece of the Chinese complex (Feature 1) is a compound or courtyard-like configuration (7.5 m north south by 7.5 m east west) (Figure 22). The surrounding dry-laid, untrimmed neat boulder walls (as evident throughout the complex) are up to seven courses high

and 45 cm to 130 cm in height with width of walls from 70 cm to 130 cm (where the walls merge with cobble and boulder mine tailings). The floor is a gravelly-granular loam suggesting either unmined alluvium present or, more likely, sediments brought in to make the floor. Some of the walls may have defined spatial separations of activities like workshops versus camping/cooking areas.



Figure 22. Feature 1, Compound (10 cm Rod For Scale)

The intermediate area between the compound and larger flat is about 5.5 m north south by 4 m east west. This area includes a continuation of the sediments present at the first described setting.

The flat adjoining the intermediate area is about 5 m across, also including unmined or introduced sediments. No larger clasts are evident as present in the adjoining tailings' fields.

Feature 2 is 7.5 m north-south by 6.6 m east-west with surrounding walls 71 cm to 102 cm high, 188 cm wide, with four courses of boulders and large cobbles. The floor is tailings' rock rubble. The north wall is wing-shaped, and it is 7.6 m long in a northeast to southwest orientation, extending beyond the feature area.

Feature 3 is an arc-shaped walled area over two meters across with rock rubble within the floor. The wall height is between 71 and 102 cm, nearly two meters wide and four courses high, also merging into adjoining tailings (Figure 23).



FIGURE 23. Feature 3 (10 cm Interval Scale)

Feature 4 is a well-built three-sided rectangular enclosure 1.85 m long by 1.42 m wide with four-coursed boulder walls 86 to 122 cm high. The back wall is slightly curved outward. Ash and a sheet metal interior base (cooking griddle?) indicate this feature may have been used as a hearth/cooking area (Figure 24).



FIGURE 24. Feature 4 (10 cm Interval Scale)

The west and south sides of the complex are a series of boulder/cobble tailings fields and rock-lined mine drains with artifacts scattered on the surface. An east drain-supporting wall is 91 cm high containing 6-7 layers of large cobbles and boulders with adjoining cobble and boulder flat benches or terraces. This suggests Chinese use after a period of ground sluicing and, perhaps, early hose/monitor hydraulicking.

Ritchie (1993:354) remarks that in New Zealand's Central Otago the majority of the Chinese miners' huts were made of stone. Furthermore, most of the huts at Cromwell were built of cobbles. "The use of cobbles for house construction at Cromwell is readily understandable. The settlement there was established in an area that had already been mined by Europeans. Consequently there was an abundant supply of cobbles available for construction purposes among the tailings." This appears to be the case at this Indian Creek location. Ritchie (1993:358) also notes, "While walled courtyards are a common component of houses in China, stoneenclosed yards are an infrequent feature of Chinese miners' dwellings on the southern New Zealand goldfields." Possibly the walled courtyard at this Indian Creek location is related to this Chinese practice. Voss (2018:293), in discussing transient 19th century Chinese railroad worker camps in the American West, relates that the workers in cases added stone walls and hearths to natural rock shelters and that some camps were organized into distinct activity areas such as where they slept versus where they cooked, ate and socialized. "In others, cooking and social areas appear to be

integrated with tents and other structures.” The location discussed herein looks to be rather tightly clustered in terms of apparent activity areas.

In examining the artifacts noted during the location documentation, it is immediately apparent that this was a work camp with apparent limited residency. Of the 95 items identified, 32 were in the main walled compound, 10 more in the adjoining intermediary area, and 15 in the south side vicinity (Table 2). There does not appear to be a distinction between locations in terms of the dominant artifact types, which include worked iron sheeting, modified food canisters, and common cut nails except to some extent inside and outside the main compound where the greatest diversity was encountered (Table 2). It is likely that cultural remains were tossed over the nearby bank into Indian Creek during location use.

The Chinese signatures at this location include a Winter Green rice bowl with base mark that can be interpreted as “sunrise” (Figure 25); a portion of a large brown glazed stoneware storage jar, ceramic sherds from one or more small glazed brown stoneware jars, two Chinese packing crate nails (cf. LaLande et al. 2015:55, Lindström 1993:31, Rogers 1997:31, and Wegars 1995:106-107), a brass opium tin lid with the popular Sheung Wan Fook cartouche (Figure 25) (<http://www.cinarc.org/Opium.html>), and possibly some of the rectangular canisters (cf. Rogers 1997:55, Johnson 2016).



FIGURE 25. Chinese Winter Green Rice Bowl Base and Brass Opium Tin Lid

The remains present that perhaps might indicate limited residency are the ceramics, lantern part, food cans, a cast iron stove part (on the site edge), and a coffee boiler (Figures 26 and 27). A handful of western United States Chinese cabin sites have considerably more residential debris including food refuse (cf. LaLande et al. 2015, Lindström 1993, Markley 1992, Mead 1996, Pierson 2008, Ritter 1986, and Sundahl and Ritter 1997) than observed here, excavations aside. The main compound and flat could have served as a location for one or more wooden floored tents. For certain, the scattered debris implies a busy work area. (Extensive archaeological excavations at this complex could change some of the proposals here).



FIGURE 26. Various Early Canisters From Camp



FIGURE 27. Coffee Boiler

Most of the metal artifacts indicate re-use and modification as common at other western United States Chinese camp locations and beyond (cf. Lindström 1993, Markley 1992, Mead 1996, Ritchie 1986:34, Rogers 1997, and Wegars 1995 as good examples). The remnants clearly relate partially to construction activities such as lining sluice boxes with iron sheeting for reinforcement and leakage prevention, patching holes; repairing/constructing sluice boxes, wooden rockers, equipment platforms or supports, carrying poles, and patching modified cans (Figure 28). Ritchie (1986:340) at his New Zealand Chinese sites states, “Kerosene cans were also used extensively for metal sheetings...The tin-sheets were used for roofing, patching, garden borders...”



FIGURE 28. Rectangular Solder-Seamed Canister

Aside from ferrous scraps removed or tossed out, there are a drawing knife, nails (general construction size), a wood screw, a rocker riddle plate remnant (Figure 29), and a ferrous wedge. The cut metal, some of which is a rather thick gauge, indicates use of metal snips and chisel-like cutting tools. The modified rectangular cans with the lids discarded may have been used as water or hot tea containers, suspended from poles for transport (cf. Rogers 1997:73).



FIGURE 29. Portion of Rocker Riddle Plate

Re-used cans as for buckets and sieves infer food preparation and possibly gold recovery operations. Lindström (1993: 53) relates "Typically, all types of cans were modified and reused as steamers, carrying containers, strainers, portable stoves, foot warmers, etc." Some with perforations may have been used to germinate bean sprouts (Wegars 1995:5). Markley (1992:28, 30, 34-35) ascribes perforated cans to food strainers or steamers (Figure 30). As reported by Rogers (1997:41) with regard to perforated tubs from a 19th century Chinese railroad camp in Nevada, she states that they may have been used "to rinse and drain or sift something, the tub may have served in food preparation, laundering of clothes, or for an industrial purpose." Such could be the case for the larger perforated rectangular tins at this Indian Creek location.



FIGURE 30. Rectangular Large Canister With Multiple Knife-Blade Perforations

Penstock leftovers from hydraulic mining have been found in the general site area (Figure 7), but no such repair remnants were found at this location. An extensive trough that likely held long sluice boxes is within 100 meters. Wire nail presence in this trough does suggest late 19th-early 20th century use as compared to the earlier dating evidence of the above-described settings (see below). Overall, the ersatz nature of the remains and economizing of operations is quite apparent. Moreover, some of the metal scrap was likely used more than once owing to the mostly common cut nail holes in various configurations.

Dating this small Chinese operation, likely limited to a handful of men for a season or two, is not precise. Specific archival information on this camp was not found. The pepper bottle is identical to those from the steamship *Bertrand* (Switzer 1974:63) dating to 1865 (Figure 31). No amethyst glass was noted, generally post 1870 in dating (Jones 2000:149, Munsey 1970). A top to a possible small black powder can was found near the complex. Common cut nails in modest numbers compared to the rare wire nails suggest pre 1890s dating. At least some cans with solder seams appear to have had the solder applied by hand implying a date preceding the early 1880s (Rock 1998:13). Large, sloppily made soldered seam rectangular cans from China date from the mid-1870s to the late 1890s in Nevada's Cortez Mining District (Johnson 2016), likely the same here, if not slightly earlier. The coronet lamp burner is probably a manufactured item after 1861 based on

patent dating (see Thuro 1976:42). The lack of clear hydraulic mining association, the operation situated in the earlier placer mining set-up vicinity, but apparently post major ground sluicing (re-use of tailings as evident in the camp), also suggest dating in the later third of the 19th century. Taking this evidence together as well as archival information, it is suggested that this camp was operational sometime in the 1855-1885 range, most likely in the earlier years of this range.



FIGURE 31. Pepper Bottle

Overall, the data at the complex implies a small group of male Chinese miners undertaking tasks related to gold recovery and limited day-to-day living. There is no evidence of permanent or long-term structures nor of gardening. Following Prazniak (1984:127), this location fits the pattern of the Chinese occupants' conservation and re-use of resources with minimum waste.

We are not able to fine-tune the evidence to suggest public versus private areas, formal versus informal areas, and socializing versus work areas such as Rogers (1997) was able to do at a Chinese railroad graders' camp near Carson City, Nevada. There do appear to be separate activity or use areas as defined by walls. These could include a cooking feature and a sleeping area. The Indian Creek location is small in scale suggesting a rustic comfortable, informal, confined short-term setting for the men here. Chiu (1967:30) has remarked that between 1867 and 1880 over half of the total mining population in California was Asian, working as independent placer miners.

Williams (1971:39-40) indicates that from the mid-1850s to the 1870s "...camps were almost invariably located on the banks of streams and often upon the sites of diggings already worked over by American and other miners...in isolated and inaccessible places—somewhat removed from American mining camps." This seems to fit the location discussed here. Older tailings were repurposed into walls for use area definition. Later hydraulic mining areas appear to be above this camp, although drainage and sluicing may have occurred in the camp vicinity (within scores of meters), possibly after camp abandonment.

While this is the only mining complex that can be ascribed to the Chinese in the areas inventoried, it is suspected that others may be located within the greater watershed in both surveyed and unsurveyed areas. This camp is another constituent of the mining and settlement diaspora within this watershed and beyond in the Northern Mines, a pattern repeated throughout the Gold Rush and thereafter. The immigrant Chinese miners had an apparent small place for at least four decades in the diaspora of this drainage system but a very large role overall for a long interval in the Klamath Mountain gold fields. Significantly, as a rule the major gold recovery pattern in Trinity County's Klamath Mountains continued well into the 20th century as opposed to the Sierra Nevada.

The authors appreciate the commentary by Mary and Adrian Praetzellis (2015:162) for sharing our information beyond the archaeology community. We offer this small study in the context of the larger locality and regional diaspora, letting others take it to higher level of information sharing beyond the archaeology and Trinity County historical communities.

Conclusions

Shortly after James Marshall's famous gold discovery at Coloma in the Sierra Nevada in 1848, Mexican land grantee Pierson B. Reading and a work crew found gold a few months later at the mouth of Reading Creek and the Trinity River only six miles (about 10 km) from the Indian Creek locality discussed herein. The Gold Rush of 1849 soon found Trinity County, and we suspect it was not very long thereafter that miners moved up the main drainages from the Trinity River mines. This happened in Indian Creek by 1850 or thereabouts.

The initial mining was no doubt on the bars of the creek followed very shortly by ground sluicing operations on the lower terraces. A BLM report from 1996 (page 32) states that by 1853 "most of the ground workable by early processes of the rocker and short sluice had been discovered and worked, and prospecting and mining of higher grounds and heavier gravels was being prosecuted." The report continues stating, "at this point in time, long ditches were developed and hydraulic mining was begun." By at least 1853, ditches were being dug by groups of miners to process the sediments of the lower terraces along Indian Creek in the upper watershed, and the supporting village of Indian Creek was founded.

The 1996 BLM report (page 33) indicates that during the Civil War period, "Indian Creek gold represented a sizeable portion of Trinity County gold." Furthermore, "Oftentimes mining claims were worked two or three times because there was such success at finding gold there. All of these 'attributes' led to fairly extensive hydraulic mining which devastated the hillsides and dramatically altered the streambed, causing rerouting of Indian Creek in some places."

Adkins (2007:143) and Bailey (2008:22, 25) note that hydraulic mining spread from the Sierra Nevada mines to the isolated northwestern California mines by the 1860s. The Weaverville newspaper *Trinity Journal* on May 30, 1872 relates that canvas hoses were being replaced by Little Giants (monitors), and on October 11, 1873 there is discussion of 25,000 feet of hydraulic pipe brought to the county indicating "...that our mines have concluded that hydraulic mining is more profitable than sluicing." It seems clear that there was an overlap of mining techniques in the years before the mid-1870s. There has been previous discussion of the newspaper account of the difficulty in 1874 of digging the creek bars "to which the mining is confined" being extremely rocky". Clearly, there is some discrepancy between the newspaper account and the legal records examined. Even shortly after passage of the General Mining Act of 1872, in 1875, the upper terrace Cacy Mine was patented based on discovered gold values.

From the 1870s well into the 1880s or 1890s, ground sluicing, booming and hydraulic operations were being conducted, including work in the 1890s by the Indian Creek Mining Company. When legal decisions in the Sierra Nevada curtailed much of the destructive hydraulic mining due to debris clogging the rivers and streams of the Central Valley, hydraulic mining in Trinity County lacking such restrictions boomed persisting into the 1950s and 1960s (see Tordoff 2013:32-33). Tordoff (2013:33) reports that in 1898 there were 307 hydraulic mines in the county, including 67 in the Weaverville vicinity.

While mining may have diminished locally somewhat by the 1880s (since that is when the Indian Creek school was closed), the legal decisions in the Sacramento Valley watershed may have led to accelerated work in the Indian Creek hydraulic operations. In 1905, investor and entrepreneur Dr. Fields purchased the Indian Creek Mining Company (and surrounding mines), and there appears to have been renewed large-scale mining. Dr. Fields may have had financial interests in these hydraulic mines soon after he arrived in the county in 1900.

The Silva Ditch fed the Fields Mine from log dams and ditches three miles up the forks of Indian Creek. BLM (1996:32) states that the Fields Mine was considered one of the largest placer mines in Trinity County. This mining operation, it is reported (BLM 1996:32-33), "obliterated almost all of the level ground" for two to three miles upstream. Bailey (2008:34-35) notes that the Indian Creek mines were among the largest in the county. Based on ledger accounts, the Fields Mine was a productive enterprise, curtailed by World War I limitations and his ill health and death in the 1930s. His wife, Honora, and family members keep the claims until at least 1949. There was an apparent resurgence of mining activity during The Depression (BLM 1996:34)

The gold mining diaspora was very evident in this drainage. The local Wintu were perhaps driven out early with a few women marrying miners in the 1850s. The Wintu apparently hung around the edges of the mining operations with men providing wild meat to the miners. The women scavenged local agricultural fields after harvest, at least at one nearby large ranch. We have a record of one Native American man being born in the locality in 1856, perhaps to a miner and his wife. There is no data uncovered to date to suggest they were working the mines, but such is a possibility in early years as was the case in the Sierra mines.

After the downfall of the original inhabitants of this locality, the miners and supporters rushed in, mostly men of many nationalities with the Portuguese by 1855 or so dominating and present to this

day. The usual potpourri of other western Europeans included the Irish, Germans, Italians, French, Canadians and others, the Europeans comprising nearly half of the population in 1870. Yankees dominated the other half with a mix of Midwesterners, Southerners and California-born children. Less than 10% of the 1870 residents of the Indian Creek census area were women and fewer children. Six families lived in the local valley setting in 1870. It is very likely the Chinese presence is under-represented in the County records.

The little-documented Chinese were present for several decades working placer mines along the creek in their expedient fashion. That more definitive evidence of the Chinese presence is not apparent may owe to their tidiness (cf. Meals and Stevens 1993:30) based on earlier first-hand observations in the Mother Lode. LaLande in southern Oregon (1981:333) determined that there were no Chinese specific attributes associated with known Chinese placer claims, including elaborated un-coursed un-mortared rubble walls. The one Chinese camp examined as part of this study did exhibit feature neatness with unusual small walled configurations. However, artifacts tended to be widely scattered across the features. Kelly and McAleer (1986:23) at Ohio Flat along the Trinity River found the Chinese presence did not leave elaborate stonewalls and a clean appearance, although there appear upon personal observations to be elaborate stone retaining walls present and few artifacts.

The Northern Mines for gold extraction generally have been studied less than the more famous Mother Lode gold mines, yet they appear to exhibit many similarities despite differing lithologies, such as a general lack of profitable gold-bearing Tertiary deposits, and interrelationships with larger agricultural expanses. Remoteness in the Northern Mines was also an issue, including distance from places of commerce and legal issues. There are also regional variations and relevant research questions that remain pertinent to our understanding of local lifeways and history and recognizing the importance of these historic landscapes.

The mining landscape left in Indian Creek is complex generally reflecting those later operations that focused on the creek terraces and hillside gravels. Available water for the gold extraction activities does not seem to have been a problem, from lesser ground sluicing to high-pressure hydraulicking and massive ground sluicing and booming. Deposits clearly varied in their sediment composition with high deposits containing fewer larger clasts such as cobbles and boulders.

Hydraulic mining was conducted well into the 20th century as opposed to its largely reduced character in the Sierra Nevada. As rough estimates, the removal of earth and sediments by the ground sluicing and lower pressure hydraulicking included at least 680,000 cubic yards of materials with an added 6.5 million cubic yards of deposits removed by high-pressure hydraulic mining. This is only part of the greater watershed mining landscape. The former figure comes from a qualitative consideration of significantly smaller headwalls, strings of cobble tailings, smaller drainage features, and lesser change of elevation from the current creek to the headwall. Furthermore, a contributing ditch is much closer to the lower headwalls. The latter figure is estimated from the presence of larger drain/sluice features, larger and higher ditches away from larger headwalls; from the occurrence of berms developed to capture hydraulic slickens, and the incidence of hydraulically derived canyons where more pressure was necessary for the canons to work the higher elevation gravel areas.

The Indian Creek Mining District was one of the largest of hundreds in the County and apparently was highly productive for decades with a purity in the gold recovered. The location is still relatively remote with a good definition of features and possibilities of subsurface cultural deposits that could yield more details on the human presence and experiences here.

The remains represent a complex mining landscape and associate structures, features and artifacts, with a story of endurance, hardship, entrepreneurship, ethnic diversity, and, sometimes, reward. They speak to the human ingenuity, shared experience of immigration, settlement, displacement, economic development, and abandonment.

References Cited

Adkins, Richard D.

2007 *The Destruction of the Trinity River, California (1848-1964)*. Unpublished Ph.D. Dissertation, University of Oklahoma, Norman.

Bailey, Jim

2008 *The Other California: Trinity County Placer Mining 1848-1962*. Bureau of Reclamation, Denver.

Bartlett, James W.

1940 *Annotations to Cox's Annals of Trinity County*. Printed for Harold C. Holmes by John Henry Nash. University of Oregon, Eugene.

Bowie, Augustus J. Jr.

1885 *A Practical Treatise on Hydraulic Mining in California*. D. Van Nostrand, Publisher, New York.

Bureau of Land Management

1979 *Request for a Determination of Eligibility for the National Register of Historic Places for "Indian Creek Townsite" Trinity County, California*. Report on file with the Bureau of Land Management, Redding

1996 *Indian Creek Watershed Analysis, Administrative Draft, September, 1996*. Report on file with the Bureau of Land Management, Redding, California.

Chiu, Ping

1967 *Chinese Labor in California, 1850-1880: An Economic Study*. The State Historical Society of Wisconsin, Madison (Second Printing).

Hanover, Rita

n.d. *The Chinese of Trinity County*. Manuscript on file with the Trinity County Historical Society, Weaverville, California.

1970 *Legends of Trinity County*. California Traveler, Inc. Volcano, California.

Johnson, Erika

2016 *Chinese Cans in the Countryside*. Poster handout from the 35th Great Basin Anthropological Conference, Reno, Nevada.

Jones, Alice Goen (editor), Richard Krieg, Elizabeth Bigelow Langworthy, Henry C. Meckel, Florence Scott Morris, Walter Robb, and Herbert Woods.

1981 *Trinity County Historical Sites*. Trinity County Historical Society, Weaverville.

Jones, Olive R.

2000 A Guide to Dating Glass Tableware: 1800-1940. *Studies in Material Culture Research*, Karlis Karlkins, editor, pp. 141-232. The Society for Historical Archaeology, California, Pennsylvania.

Kelly, John L., and John McAleer

1986 *An Archaeological Survey, Assessment, and Recommendations for the Ohio Flat Mining District (CA-Tri-843) Trinity County, California*. Report prepared for the U. S. Department of the Interior, Bureau of Land Management and the State of California, Department of Parks and Recreation, Redding and Sacramento.

LaLande, Jeffrey Max

1981 *Sojourners in the Oregon Siskiyou: Adaptation in the Applegate Valley, Ca. 1855-1900*. Master's thesis, Oregon State University, Corvallis.

LaLande, Jeff, Eric W. Ritter, and James J. Barnes

2015 *Archaeology of a Chinese Mining Camp (Site CA-SIS-1801-H)*. Cultural Resource Publications: Archaeology. Bureau of Land Management, Redding.

Lindström, Susan

1993 *Archaeological Evaluation and Data Recovery at CA-NEV-572-H, A Chinese Cabin Site at Juniper Flat Cambridge Estates Subdivision Truckee, California, Nevada County*. Prepared for CRN Development, Fair Oaks, California.

Lindström, Susan G., John Wells, and Norman Wilson

2000 Chasing Your Tailings: A Review of Placer Mining Technology. *Proceedings of the Society for California Archaeology* 13:59-83.

Markley, Richard E.

1992 *An Evaluation of Two Chinese Mining Camps on the North Yuba River, Sierra County, California*. USDA Forest Service, Tahoe National Forest, Grass Valley, California.

Meals, Hank, and Dennis Stevens

1993 *Tailings and Time Travel—The Plot: 'Slickens': A History of Placer Mining Methods and Communities along a Portion of the North Yuba River, 1848-1942*. Heritage Resources Information Series, Report Number 1, Tahoe National Forest, Nevada City, California.

Mead, George

1996 *Two Dragon Camp: A Chinese Settlement in the Camp Carson Mining Area, Union County, Oregon*. La Grande Ranger District, Wallow-Whitman National Forest, La Grande, Oregon.

Munsey, Cecil

1970 *The Illustrated Guide to Bottle Collecting*. Hawthorne Books, New York.

Nilsson, Elena

1990 *Archaeological Test Excavations at CA-Tri-1019: A Late Prehistoric Site in the Upper Trinity River Region of Northern California*. Report prepared for Pacific Gas and Electric Company on file with the Bureau of Land Management, Redding.

O'Brien, J.C.

1965 *Mines and Mineral Resources of Trinity County, California*. County Report 4, California Division of Mines and Geology, San Francisco.

Pierson, Heidi

2008 *The Historical Archaeology of Ethnicity at Two Mining Camps in West Redding, California*. Unpublished Master's Thesis, Department of Anthropology, California State University, Chico.

Praetzellis, Mary, and Adrian Praetzellis

2015 Commentary on the Archaeology of Chinese Railroad Workers in North America: Where Do We Go from Here? *Historical Archaeology* 49 (1) pp. 162-174.

Prazniak, Rosann

1984 The Chinese in Woodland California: A Social History of the Canton Delta Region, 1850-1880, in connection with Archeological Findings at the Woodland Opera House Site. In: *The Chinese Laundry on Second Street: Papers on Archeology at the Woodland Opera House Site*. California Archeological Reports No. 24, pp. 121-138. Department of Parks and Recreation, Sacramento.

Ritchie, Neville A.

1986 *Archaeology and History of the Chinese in Southern New Zealand during the Nineteenth Century: A Study of Acculturation, Adaptation, and Change*. Ph.D. dissertation on file with the Department of Anthropology, University of Otago, Dunedin, New Zealand.

1993 Form and Adaptation: Nineteenth Century Chinese Miners' Dwellings in Southern New Zealand. In *Hidden Heritage, Historical Archaeology of the Overseas Chinese*, Priscilla Wegars, editor, pp. 335-374. Baywood Publishing Company, Amityville, New York.

Ritter, Eric W., and Alden R. Neel

2019 A Historic Chinese Mining Camp within the Indian Creek Gold Mining Complex, Trinity County, California. *Society for California Archaeology Proceedings* 33:65-81.

Rock, Jim

1998. *Cans and Canning*. Klamath National Forest, Yreka, California.

Rodgers, Harold William

1995a Memories of Indian Creek (1920). Manuscript on file with the Trinity County Historical Society, Weaverville, California.

1995b Early Mining along Indian Creek. *Trinity 1995*, pp. 18-28. Trinity County Historical Society, Weaverville, California.

Rogers, C. Lynn

1997 *Making Camp Chinese Style: The Archaeology of a V & T Railroad Graders' Camp, Carson City, Nevada*. Archaeological Research Services, Virginia City, Nevada.

Rooker, Angela, Eric W. Ritter, and Alden Neel

2017 Smith Flat: An Archaeological and Historical Study of a Placer Mining Landscape. *Trinity 2017*, pp. 17-34. Trinity County Historical Society, Weaverville, California.

Ryan, Vernon

1983 Transcript of interview with Pearl Bigelow (formerly Clement) and Charles Clement. Manuscript on file with the Trinity County Historical Society, Weaverville, California.

Santos, Robert L.

2018 Azoreans to California. <http://www.portugueseancestry.com/genealogy/html/azoreans.cfm>

Simonis, Don

1997 *Condensed/Evaporated Milk Cans: Chronology for Dating Historical Sites*. Bureau of Land Management, Kingman, Arizona.

Sundahl, Elaine, and Eric W. Ritter

1997 *West Redding Archaeology Project: Chinese and Native American Occupations at CA-SHA-1544/H and CA-SHA-1968/H*. Shasta College Archaeology Laboratory Report to the Bureau of Land Management, Redding.

Switzer, Ronald R.

1974 *The Bertand Bottles, a Study of 19th-Century Glass and Ceramic Containers*. National Park Service, Washington, D.C.

Thuro, Catherine M. V.

1976 *Oil Lamps, the Kerosene Era in North America*. Collector Books, Paducah, Kentucky.

Tordoff, Judy D.

2013 *Historic Context for Mining along the Trinity River*. Report prepared for the U.S. Department of the Interior, Bureau of Reclamation and the U.S. Department of the Interior, Bureau of Land Management by AECOM. Sacramento and Redding.

Voss, Barbara L.

2018 The Archaeology of Precarious Lives, Chinese Railroad Workers in Nineteenth-Century North America. *Current Anthropology* 19(3):287-313.

Wegars, Priscilla

1995 *The Ah Hee Diggings: Final Report of Archaeological Investigations at OR-GR-16, The Granite, Oregon "Chinese Walls" Site, 1992 through 1994*. University of Idaho Anthropological Reports, No. 97. Moscow, Idaho.

Wells, Tom

1998 Nail Chronology: The Use of Technologically Derived Features. *Historical Archaeology* 32(2):78-99.

Williams, Stephen

1971 *The Chinese in the California Mines 1848-1860*. R and E Research Associates, San Francisco. (Originally published as a Ph.D. dissertation in History, Stanford University, 1930.)

TABLE 1: Archival Entries for Indian Creek Mining Location Notices/Mining Claim Sales

May 11, 1862, Mining Claims Book F, page 322. Richard Meissenheimer (?), James Morris, Henry Darston, George Burrus and Charles O'Connell "...claim five mining claims of one hundred feet each on the south bank of Indian Creek about one eighth of a mile above the town. Such claims are bounded on the lower or west side by James Wallace and his claims and extend upwards or east therefrom a distance of five hundred feet and we intend to work the same as soon as practicable." (See Appendix 2).

June 25, 1862, Mining Claims Book F, page 322. Mining claim recorded in Indian Creek "about half mile above the town..." by L.D. Richardson.

October 20, 1862 Mining Claims Book F, page 330. Patrick O'Connell, David O'Connell and Timothy Reading "...claim three mining claims on the south bank of Indian Creek about one mile above the town for mining purposes..." (See Appendix 2).

July 27, 1863, Mining Claims Book F, page 384. George Crumb sold a mining bank claim on the North Fork of Indian Creek known as Picfel Bar to John Sharper and Christian Henningan (?).

July 27, 1863, Mining Claims Book F, page 384. George Reinhold sold a mining claim on Indian Creek just above the junction of the South and North forks on the North Fork on the south side to William Rodes. (See Appendix 2).

July 22, 1864, Mining Claims Book F, page 423. Manuel Masier (?) and Masiu Mandor (?) (Both illiterate) sold their claims on Indian Creek to Joseph Caldoo (?) situated within or near the bed of the creek. The sale included sluice boxes, mining tools, two mining cabins, and gardens. (See Appendix 2).

September 3, 1874 James A. Johnson, James Wallace, James Benton, James Morris, Louis Stumallon (?)

September 3, 1874 (Notice of Locations and 1875 patent record) on Indian Creek. Established the 65-acre Cacy Mine (with map) showing Johnson's house at east end of claims. The map also illustrated the creek alignment, Cacy Mine extent, a wagon road, and the Silva Water Ditch (see Figure 8).

Examples of Affidavits of Labor on Mining Claims (On File with Trinity County Courthouse)

November 4, 1897 (File No. 20), December 16, 1899 (File No. 538), January 2, 1901 (File No. 896), December 31, 1901 (File No. 1275), December 24, 1902 (File No. 1530), December 31, 1903 (File No. 1755), December 31, 1904 (File No. 2023), January 6, 1906 (File No. 2391) for the Indian Creek Placer Mine, all with the Indian Creek Mining Company.

January 3, 1907 (File No. 2565), January 30, 1908 (File No. 2726), December 23, 1908 (File No. 2826), December 13, 1910 (2-568), December 30, 1912 (3-163) for the Indian Creek Placer Mine all with new owner D. B. Fields.

December 29, 1899. Antone Rodgers with co-claimant Frank Duarte for the McWilliams Placer Mine, Indian Creek Mining District including "24 days mining on the ground and 5 days prospecting and fitting up claim".

December 29, 1899. Antone Rodgers with co-claimant Frank Duarte for the Morris Placer Mine and the McWilliams Placer Mine, Indian Creek Mining District including "5 days work fitting up the claim and 24 days work mining the ground for gold". (See Appendix 3).

December 31, 1900. H. M. Hall on behalf of the Indian Creek Mining Company, a corporation for the Ridge Placer Mine consisting of "work upon the Indian Creek Ditch to mine the claim." (See Appendix 3).

December 31, 1900. H.M. Hall on behalf of the Indian Creek Mining Company, a corporation for the Indian Creek Placer Mine consisting of "work upon a sluice flume upon the claim." (See Appendix 3).

November 24, 1902. H.M. Hall on behalf of the Indian Creek Mining Company, \$500.00 expenditure on the Consolidated Placer Mine, "mining for gold upon the claim". Located in Twn. 32N, Rng. 9W, Section 26.

November 24, 1902. H.M. Hall on behalf of the Indian Creek Mining Company, Indian Creek Placer Mine \$300.00 for "work on a sluice flume and dump on the claim." Located in Twn. 32N, Rng. 9W, Sections 26 and 27.

November 24, 1902. H.M. Hall on behalf of the Indian Creek Mining Company, Big Jim Placer Mine, \$500.00 expenditure for "mining for gold upon the claim." Located in Twn. 32N, Rng. 9W, sections 26 and 27.

November 24, 1902. H.M. Hall on behalf of the Indian Creek Mining Company, Ridge Placer Mine, \$100.00 expenditure for "flume work on ditch to claim." Located in Twn. 32N, Rng. 9W, Section 27.

November 20, 1903. H.M. Hall on behalf of the Indian Creek Mining Company, Ridge Placer Mine, \$100.00 expenditure for "work on dam and ditch."

November 20, 1903. H.M. Hall on behalf of the Indian Creek Mining Company, Big Jim and Indian Creek placer mines, \$100.00 each for "mining and prospecting upon the claim."

December 31, 1913. Affidavit of Labor: D.B. Fields attests to labor as follows: "The Big Jim, The Indian Creek, The Consolidated, The Fields & Dedrick, the Duarte, the Rogers, the Ridge and the Panwauket Placer Mining Claims situated in the Indian Creek Mining District...that said labor and improvements consists of running tunnels and open cuts, sinking shafts, building dam, at head of ditch on South Fork of Indian Creek, cleaning, repairing and extending the Indian Creek ditch, prospecting and doing other development work upon and for the benefit of said claims, the total cost of which was not less than \$1500.00. (See Appendix 3).

January 12, 1915. Affidavit of Labor: D. B. Fields attests to labor as follows: Big Jim, The Indian Creek, The Consolidated, The Fields and Dedrick, The Duarte, The Rogers, The Ridge,

Panwauket "...sinking prospect holes, cleaning out and repairing ditch, building new dam on Indian Creek, South Fork." More than \$1000.00 worth of labor. Similar affidavits were filed for 1917, 1918, 1919 and 1922. D.B. Fields served with the American Expeditionary Force in WWI in Europe, so others filed for him when he was overseas.

June 2, 1944, Book 3, page 144. Affidavits of Labor—Mining Claims. Honora B. Fields (wife of D.B. Fields), for Indian Creek.

1946, Book 30, page 26. Affidavits of labor-Mining Claims. Honora B. Fields, for Indian Creek.

July 30, 1949 Affidavits of labor-Mining Claims Honora B. Fields and Henry C. Fields on various claims including those in Indian Creek.

Water Rights/Notices

(Earliest County Records Apparently Start at 1851)

December 11, 1853, Water Rights Book A, page 134. Texas Bar Mining Company (along Trinity River) William E. Ruth (?), P. Trumbche (?), W.E. Mitsell, F. March, W. Knapp, and James L. Buford. Water right for Indian Creek "...to commencement of point of said creek known as Isthmus" (downstream of study location).

June 11, 1855, Water Rights/Deeds Book E, page 170. "...I David McMillen (illiterate) have this day...do sell and convey, transfer and assign to Chinaman 'Ache' a certain water race entitled to six sluice heads of water from Indian Creek...also nine sluice boxes, three shovels and three picks, three miners cabins, and three bars for mining purposes on said creek in which said ditch conveys water for the sum of four hundred dollars.." (Apparently located 1 ½ mile above the mouth of the creek below our focus several miles). (See Appendix 1).

Ca. July 1855, Water Rights Book E, page 211. Virgil Lancaster, Robert Caton, and Darnell Cooper "located and laid claim to a certain ditch survey". Located on the north side of Indian Creek above Hall's Bar running down creek two miles holding as much water as the "ditch will carry when completed."

October 16, 1855 Deeds, Book E, page 313. A.J. Sloper & Co. filed for six sluice heads of water taken out by ditch on Indian Creek ½ mile below the Forks. Water to be run in a race in operation since 1853. (See Appendix 1).

April 2, 1856, page 15. Robert Ferguson and others, Indian Creek Water and Mining Company. Claimed all the water in creek to be taken from the south side of creek near Lancaster's house down in a race to mouth of creek.

March 10, 1857, Mining Claims Book E, page 44. Morrissey (Henry) and Palmer claimed all the surplus water from Indian Creek after the Texas Bar Company was supplied claiming fourteen sluice heads of water using a race for mining purposes on the bars of the Trinity River.

May 5, 1858, Water Notices Book F, page 124. Joseph King (illiterate), John Davis and Manuel Silva (a company) "claim for mining purposes ten sluice heads of water and the ground necessary for conveying the same to be taken out of Indian Creek....at a point where the ditch known as Lancaster's ditch ceases...." (See Appendix 1).

October 8, 1860, Water Rights, Mining Claims Book F, page 253. Manuel Francis De Costa and Juan Mario Bilor (?) (Illiterate) claimed the right of survey for continuation and construction of ditch below their existing ditch to carry water to their workings along Indian Creek.

April 20, 1861, Mining Claims, Book F, page 279. Charles O'Connell and Frederick Johns claimed two sluice heads of water connected with the ditch known as the Charley Fifer (?) on the South Fork of Indian Creek. Filed at the request of Silcox. (See Appendix 1).

October 3, 1862, Mining Claims Book F, page 325. James D. Ellison "...do hereby locate a ditch to convey the waters of the South Fork of Indian Creek in said county upon mining ground upon the banks of said stream..." (See Appendix 1).

June 18, 1864, Water Rights. Daniel Attinger "...takes up and claims all of the water of Mule Gulch in Indian Creek Townshipto convey the same by ditch along down in said creek and gulch for mining purposes and to sell to miners and others. (See Appendix 1).

May 6, 1872, Water Rights Book F, page 133. James A. Johnston claimed "the water running in the south fork of Indian Creek "...through a flume 30 inches wide and 2 feet deep and ditch 36 inches wide and 2 feet deep: to extend down the south bank of main Indian Creek for mining and irrigating purposes said ditch to carry 700 hundred (sic) inches of water under a four inch fresher..." (See Appendix 1).

July 23, 1872, Water Rights/Mining Claims (Deeds?) Book F, page 142-143. Richard Silcox sold to Manuel Rabbitt and Antonio Rodrigues one hundred and fifty inches of water when it is his ditch to work out their claims. Signed by Rabbitt and Marcellino Bargas, not Rodrigues. (See Appendix 1).

August 22, 1878, Book F. page 178. R. Dockry and Company claimed "...all the waste water from Elvis Soules (?) head dam across Indian Creek, and running in said creek below said dam for mining purposes."

April 16, 1883, Book 5, page 365. C. F. Foster, J.D. Potts, F. D. Robinson, J. M. Finch claimed 100 inches measured under a four inch pressure from the Middle Fork of Indian Creek for mining and milling purposes, including damming and diverting water into a ditch, flume or pipe.

July 15, 1885, Book 6, page 184. A.E. Titus claimed 50 inches of water from the south branch of the South Fork of Indian Creek to be used for mining and milling purposes.

April 25, 1886, Water Rights Book 6, page 271, Book 1, page 67. J. Smith, Mrs. K. Morris, and William Lang "...claim occupation, possession and enjoyment of all and singular..." a tract of land for the purpose of constructing a flume or water ditch from the South Fork of Indian Creek to a mill and quartz claim.

January 9, 1891, Book 1, Water Notices, page 187. William Morris, John Morris and D. L. Smith "located and claim one hundred and fifty inches of water measured under a four inch pressure of the South Fork of Indian Creek....taken from said stream at a point where this notice is posted about 150 feet north of log house known as the Smith & Morris Bros. cabin." (See Appendix 1).

March 18, 1893, Book 1, Water Notices, page 258. John Fratus (illiterate) "claims two hundred inches of natural flow under a four inch pressure of the water of the North Fork of Indian Creek

for mining and irrigating to be conveyed in a ditch from a point at a live oak tree about 500 yards above Johnson's dam, to my place known as the Fratus Ranch..." (See Appendix 1).

July 3, 1893, Book 1, Water Notices, page 271. B.S. Guphill, J. B. Siegfried, and William Morris "...located and claim two hundred inches of the first flow of the water of Indian Creek with four inches of pressure to each individual inch of water on the head box...located on the north side of Indian Creek and about four hundred feet below Johnston's lower or Montier ditch; and about seven hundred feet below or down Indian Creek from the mouth of second gulch, said water to be used for irrigating and mining purposes." (See Appendix 1).

TABLE 2
Indian Creek Chinese Work Camp
Surface Artifact Descriptions and Other Observations
(Inches used except on known China-derived artifacts and structures)

Compound /Feature/Structure 1

North wall variable ht. 45-59 cm; east wall 75-95 cm ht.; south wall 65-130 cm ht.; 70-90 cm wall wd. with one "wall" 120 cm+ as it merges with boulder tailings. Up to seven courses of mostly boulders, but generally over five. Soil is a hard to indurated gravely/granular loam at location suggesting some of the sediments may not have been mined and perhaps some may have been brought in for flooring. There does not appear to be any sorting of gravels and sands, but there are no cobbles present.

- 1) Ferrous bucket from rectangular canister. Top cut off and rim rolled with side D-rings added at rim for handle. Canister made from 3 side sheets, top sheet and bottom sheet with lap seams soldered. Ht. 15 9/16" x 6" depth x unknown wd. dimension but likely over 9".
- 2) Perforated rectangular ferrous canister (60+ knife holes on sides and bottom) (Figure 30). Top removed and rim hand rolled. Five sheet construction with soldered lap seams. 15 9/16" ht. x 9" ln. x 6" wd. Top edges perforated for placement of a wire bail (food product sieve or drain?).
- 3) Cut and folded scrap tin sheet with common cut nail hole and 3/4" embossed rim. Sheet is 18 1/4" long and 4" wide.
- 4) Ferrous coronet burner for a lamp. Height 1 7/16"; maximum dia. 1 1/2"; top dia. 1 7/16". Lap seam with 3/4" wire nails and small gauge wound wire and 20 teeth to hold base of glass chimney.
- 5) Ferrous strap or band with one rivet. Ln. 8 3/4"; wd. 3/8"; th. 1/32".
- 6) Rectangular ferrous canister lid 9 3/8" across. Lid cut and removed with one edge crimped and semi-circular embossing on other corners.
- 7) Flattened ferrous hole-in-cap canister with ht. of 4 7/8"; and flattened wd. of 4 5/8"; soldered lap seam.

- 8) Scrap tin, cut? Miscellaneous holes in sheet with one round-headed rivet left. Sheet japanned with red coating remnants present. Ln. 24" with maximum wd. of 9 1/2", deteriorating on one edge. Th. 1/32" or less.
- 9) Possible companion sheet metal scrap to #8. Common-cut nails holes present along with one round hole. Ln. 21 1/2"+ with one edge 9 3/4" wd. Number 8 and 9 may be parts of sluice box or cabin siding or roof.
- 10) Ferrous knife-edged bar with missing handle spurs that are 3/4" wd. Overall ln. is 10 1/4", bar wd. is 1 3/16" and blade wd. is 1 1/16". This was a straight-edged drawing knife.
- 11) Scrap tin sheeting canister part with soldered lap seam. Ln. 8"+; wd. 4 3/4"+.
- 12) Two Chinese L-nails. 4.2 cm ln. and 4.0 cm ln.
- 13) 2d wire nail
- 14) Common cut nails: 9d, 10d, 12d, 16d; 4 common cut shanks.
- 15) Ferrous wood screw, size 7.
- 16) Two strap fragments 5/8" wd.
- 17) Aqua glass shards from one or more bottles.
- 18) Ferrous rod 2 1/2" ln., 3/32" dia.—broken or incomplete?
- 19) Three Chinese brown ware sherds including a foot ring of a bowl or jar 9 cm in dia. A brown ware liquor bottle in BLM's collection, for instance, has an unglazed foot ring 9 cm across. Part of interior is un-glazed.
- 20) Medium green bottle shard.
- 21) Light green thin multi-sided bottle or jar shard

Intermediate Area Between Compound and Flat

- 1) Heavy tin sheet scrap, ln. 42 1/2"; wd. 39 3/8"; th. 1/32". Sides are soldered seam remnants, one with edge folded; one corner cut off and one edge shows it was cut. Many common cut nail holes with some round holes (nail or punch?) suggest siding of sluice box and/or building as possibilities.
- 2) Top cut from cylindrical tin container, 8 7/16' dia. Three embossed "Ds" on top along with spout remnant.
- 3) Small tin container or box lid with central embossed rectangular panel. One edge is rolled with wire inside roll for hinge. There is a latch on the interior opposite hinge side. Ln. 5 7/16"; width 2 9/16".
- 4) Cut tin scrap, ln. 12 3/4"+; wd. 6 3/4"+. Piece is deteriorating but it has been japanned and it exhibits 3 undetermined nail holes.
- 5) Folded tin scrap with rolled edge. Ln. is 9 3/4" and wd. is 8"+.
- 6) Folded (smashed) rectangular tin container with one nail hole. Manufactured from at least three sheets with soldered lap seams. Ln. is 12 1/2"+; wd. 9 1/4"+.
- 7) Rectangular tin container with stamped end. This artifact was cut near the base of the container, and the edges were folded to make a shorter container. Ln. 9 1/2"; wd. 5 1/8".
- 8) Folded and cut tin scrap lacking any seams. Ln. 6 1/8"; wd. 5 1/16".
- 9) Tin pan or plate edge with folded rim and then this scrap remnant was folded. Ln. 18" +; wd. 2 1/4".

- 10) Possible rectangular tin scrap with rims folded over slightly; $5/16$ " thick. Artifact may have been japanned and piece folded into "accordion-like" folds. Ln. $11\frac{7}{16}$ " +; wid. $9\frac{3}{8}$ " actual.

Feature/Foundation/Structure 2

Wall height 71-102 cm., wall wd. 188 cm.; four courses high of boulders and cobbles.

- 1) Three tin scraps.
- 2) Tin coffee pot or "Iron Coffee Boiler". Ht. 8"; dia. base is an estimated $7\frac{1}{2}$ "; dia. top is an estimated $4\frac{3}{4}$ ". Wire bale and tapered handle soldered. Three-holed "hourglass-shaped" or "pear-shaped" lugs present.
- 3) Cut-up tin washbasin utilized for scrap pieces. Original dia. $13\frac{1}{2}$ ". Most of basin has been removed.
- 4) 16d common cut nail.
- 5) Barrel hoop $1\frac{1}{2}$ " wd.

Feature/Foundation/Structure 3 (Rock Rubble Within Floor)

Structure/feature foundation measures 235 cm x 244 cm across. Wall ht. varies between 71 cm and 102 cm; 188 cm wd. with 4 courses of boulders/cobbles. Contours into boulder tailings.

- 1) Brass opium tin lid with Sheung Wan Fook Lung cartouche. Crumpled tin about 4.3 cm wd.
- 2) Sheet metal scrap.
- 3) Common cut nail shank.
- 4) Rectangular tin canister with oval friction lid top. Ht. 9"; wd. $2\frac{1}{2}$ "; depth $3\frac{1}{4}$ ". Oval opening is $2\frac{1}{2}$ " x $1\frac{1}{4}$ ". Possibly a Schilling dry goods canister.
- 5) Rectangular tin canister modified into a bucket with a D-ring added and then punched near lip for handle. Lap seam with cut top crimped over to dull the edge. Ht. $9\frac{1}{2}$ "; ln. 9"; wd. $6\frac{3}{16}$ " as best determined with crumpling evident.

Feature/Foundation/Structure 4

"C" shaped structure/feature in plan 185 ln. x 142 cm wd. Wall ht. 86-122 cm. Wall wd. is 140-150 cm, sloping outward into at least 130 cm in one direction and 1m in another direction. Wall is 4-5 courses high consisting mostly of boulders.

- 1) Ash concentration noted.
- 2) Boulder and tin sheet floor?—possible hearth and ash dump area. Moist Munsell color reading 10YR 6/3, pale brown with 5YR $\frac{3}{4}$ dark reddish-brown sediments adjoining.
- 3) 3 16d common cut nails, 2 20d common cut nail shanks, 1 10d wire nail.
- 4) Tin sheet scrap 11 " + ln.; wid. $6\frac{3}{4}$ ". Sheet exhibits burn/charcoal stains with 3 sides cut and a semi-circle cut out along one edge.
- 5) Ferrous tapered spike 10" long. Head has $1\frac{1}{4}$ " ln. and $\frac{1}{4}$ " wd. exhibiting battering. Maximum wd. of shank is $1\frac{1}{8}$ " with a th. of $5/8$ ".

Flat Adjoining Structures

- 1) Wash basin manufactured from 5 tin sheets with soldered seams and missing handles that had been soldered on. The warped remnant has an estimated lip dia. of $14 \frac{1}{2}$ "; bottom dia. of $12 \frac{1}{4}$ "; and ht. of $6 \frac{3}{15}$ ".
- 2) Ferrous cut lid with soldered spout gone; possibly coffee pot lid. Dia. $4 \frac{3}{4}$ "; hinge wd. $\frac{5}{16}$ ".
- 3) Cut tin piece with embossed band on rim that has been hand folded. Ln. $13 \frac{3}{16}$ "; wd. $6 \frac{3}{4}$ ".
- 4) Ferrous heavy bar pounded on edge and chisel-cut on opposite end. This possible shim or wedge is $5 \frac{3}{4}$ " ln., 2" wd.; $\frac{1}{4}$ " th.
- 5) 12d common cut nail.
- 6) Rectangular tin canister section cut and folded into 3 sides. Possibly japanned with additional red coating. Ln. $11 \frac{1}{2}$ "; wd. $9 \frac{1}{4}$ "—corroded.
- 7) Flattened tin canister friction lid with soldered seam. Flattened ln. $9 \frac{7}{16}$ "; ht. $4 \frac{5}{8}$ ".

West Side of Feature Complex

- 1) Galvanized corrugated metal scrap with each strip $1 \frac{1}{16}$ " wd. Ln. $10 \frac{1}{2}$ ", wd. $4 \frac{1}{2}$ ".
- 2) Square tin canister lid with rounded corners on opposing sides. Soldered seam evident. Sides are $4 \frac{1}{2}$ " ln.
- 3) Flattened tin canister, 2 pieces with soldered lap seam. No ends present. Cut edges. Rolled edge on top; cut on base. Flattened end 10" ln.; ht. after cutting $5 \frac{1}{8}$ ".
- 4) Large ferrous rectangular canister scrap with patched hole. Cut piece is $5 \frac{1}{8}$ " ln., $2 \frac{5}{16}$ " wd. Square patch is $1 \frac{15}{16}$ " across. Probable filler hole dia. is $1 \frac{3}{4}$ ".
- 5) Scrap cut tin canister piece with rolled edge. Ln. is $8 \frac{3}{4}$ " as cut.
- 6) Twisted wire 2" in ln. Diameter of wire is $\frac{1}{16}$ " (16 gauge).

South Side of Complex in Tailings Features

- 1) Large modified ferrous cylindrical bucket-like container with top bale and seams reinforced—machine-made? May be galvanized. Bottom and part of top cut off. Ht. is $9 \frac{1}{2}$ ", dia. is about 8". "Hour-glass" or "pear-shaped" lugs are $2 \frac{1}{16}$ " ln.
- 2) Rectangular ferrous canister with soldered seams. Ht. $4 \frac{3}{8}$ "; wd. 4"; depth $2 \frac{5}{16}$ ".
- 3) Cylindrical ferrous canister with soldered seam and ends missing. Ht. $4 \frac{3}{8}$ "; dia. 3".
- 4) Cylindrical ferrous hole-in-cap canister with soldered lap seam and end cut. Ht. $4 \frac{1}{2}$ "; dia. $3 \frac{1}{2}$ " with stamped ends.
- 5) Cylindrical ferrous hole-in-cap canister with crimped seam. Ht. $4 \frac{1}{2}$ "; dia. $3 \frac{1}{2}$ ".
- 6) Ferrous sheet-metal scrap japanned with one edge crimped one direction and the opposing edge crimped the other direction. Undefined nail holes were driven from both sides. Ln. is $10 \frac{1}{2}$ "; wd. is $9 \frac{1}{2}$ ".
- 7) Thick ferrous sheet fragment with hand-punched circular holes, each about $\frac{1}{2}$ " dia. Fragment ln. $7 \frac{1}{2}$ ". Perforated rocker hopper base or riddle (Figure 29).
- 8) Rectangular ferrous canister cut with knife. Ln. 4"; ht. $3 \frac{3}{8}$ "; wd. 2".
- 9) Ferrous rectangular canister top cut off with patch soldered over hole. Ln. $8 \frac{7}{8}$ "; wd. 6". Patch is 2" across with filler hole $1 \frac{3}{4}$ " dia.

- 10) Rectangular ferrous canister top cut from larger can with patched hole. Ln. $8 \frac{3}{16}$ " as removed; wd. $5 \frac{1}{2}$ ". Patch 2" across with likely filler hole $1 \frac{3}{4}$ " dia.
- 11) Trimmed/cut ferrous sheet metal band of larger sheet with 10 round nail or punch holes. Ln. $19 \frac{3}{4}$ "; wd. 1" \pm .
- 12) Ferrous rectangular canister base with embossed circle. Remnant solder drippings evident. Ln. $4 \frac{1}{2}$ "; wd. $3 \frac{1}{4}$ ".
- 13) Ferrous rectangular canister with soldered seams. Ln. $8 \frac{1}{2}$ ", wd. 7"+.
- 14) Ferrous cylindrical canister lacking ends. Lap seam evident. Ht. $4 \frac{1}{2}$ " \pm ; dia. $3 \frac{1}{2}$ " \pm .
- 15) Ferrous rectangular can bucket remnant. One end decomposed; opposite end cut off. Artifact folded. Ln. estimated at 9"; wd. estimated at 7"; ht. $12 \frac{1}{2}$ " \pm .

Vicinity Artifacts (Within 50-75 m)

- 1) Ferrous rectangular canister with spout. Drippy solder extensive. Ht. $9 \frac{7}{8}$ "; wd. $4 \frac{15}{16}$ ". Spout dia. $1 \frac{1}{8}$ "; ht. $\frac{1}{2}$ ".
- 2) Small fragment of white improved earthenware vessel.
- 3) Aqua eight-sided pepper condiment bottle with applied lip. Ln $6 \frac{5}{8}$ ", wd. $2 \frac{1}{2}$ ", th. $1 \frac{1}{2}$ ".
- 4) Broken Chinese Winter Green rice bowl with base mark. The mark appears similar to one posted on the internet (<https://www.pinterest.com/pin/395120567290530209/>) translated as "sunrise". On this web page, it states this: "Antique blue-white Ming bowl China" has the following description, "This flower bowl is similar or almost the same like the flower bowls on the Desaru shipwreck (sunk in 1830C)." Foot ring is 5 cm dia.; base mark 1.5 cm across (Figure 25).
- 5) Large Chinese brownware vessel fragment.

East Drain Supporting Wall

91 cm ht.; 6-7 courses of boulders/cobbles. Adjoining terraces or benches 305 cm and 122 cm wd.

APPENDIX 1: Water Rights and Ditches

COPIES OF ORIGINAL COUNTY RECORDS

X. Know all men by these presents that I David McMullen have this day sold and conveyed, and by these presents do sell and convey, transfer and assign to Chinaman 'Ache' a certain Water Race entitled to Six Sluice heads of Water from Indian Creek Trinity County California as by Record made in Records Office of said County on Page 518 on Book D. on December 4th 1854 in the name of McMullen and Duncan with all the rights and privileges appertaining thereto, also nine Silver Boxes three Shovels and three Picks three Miners Cabins and three Bars for mining purposes - on said creek on which said ditch conveys Water, for the sum of four hundred dollars in hand paid to the party of the first part by the party of the second part (the said Chinaman 'Ache') and the said party of the first part hereby covenants and agrees to warrant and defend the title in and to the above mentioned property to the said Chinaman 'Ache' or his legal representatives against all other claims and demands whatsoever of other persons, and this shall be and is hereby considered an absolute sale of the said premises. If a certain Note bearing even date herewith for the sum of two hundred dollars payable by said Chinaman 'Ache' to said McMullen be paid otherwise this sale shall be void, and of no effect as between the parties. Witness my hand and seal June 11th 1855

Witness

J. J. McNamee

David ^{his} McMullen ^{made}

Filed and Recorded June 11th 1855 at 12 1/4 o'clock A.M.
H. J. Seaman Recorder

State of California D.S.

Coming of Trinity

State of California
County of Fresno
Know all men by these presents that we A. J. Sloper & Co. hereby lay claim to six share heads of water taken out in the following described ditch - Commencing on and taking the water from Indian Creek about one half mile below the forks of said Creek and running down on the East side thereof - said race having been dug and used for conveying water since 1853 This 16th day of October 1855
A. J. Sloper & Co.
Recorded in Filed October 16th 1855 at 12 1/2 P.M. 1855
A. J. S. & Co.

Abbeys Co

Recorded in Field October 16th a.m. 1857 at 12 1/4 P.M. o'clock
H. Seaman Recorder

Al Seaman Therder

279

279
Know all men by these Presents that we the
undersigned Marin Ten sluice Heads of the main
connective with the Ditch known as Charley Ditch
on the South Fork of Indian Creek,

the South Fork of Indiana Creek
Indiana Creek April 25th 1861. } Chas O'Connell

Chas O'Connell

Frederick John

Filed and recorded April 30th 1861 at request
of Siler

M. F. Griffin clk

For Annally Depty.

Filed and Recorded May 4th 1858 at request
of Porgelius at 10 o'clock and 10 minutes P.M.

Jno. A. Watson - Recorder
By C. S. P. Morris - Dep

I know all men by these presents that we
Joseph Ding John Davis and Emanuel Silver
claim for mining purposes ten sluice heads
of water and the ground necessary for con-
veying the same to be taken out of Indian
Creek in Trinity County Cal at a point where
the ditch on said creek known as Lancaster's
ditch ceases, and to run from said Lancas-
ter's ditch down on the north side of said
creek about one half a mile, thence to branch,
one fork crossing said creek and extending
down the south side of said creek about one
quarter of a mile, the other fork to extend down
from the point of branching for about one
quarter of a mile on the north side of said
creek.

Thensenville Trinity County Cal
May the fifth A.D. 1858

Signed in the presence
of James Gallagher by
Joseph Ding for his
Company.

Joseph Ding & Co
his X marks

Filed and Recorded 5th day of
May 1858 at 11 o'clock A.M. at request of
Joseph Ding.

Jno. A. Watson
Recorder
By C. S. P. Morris - Dep

Know all men by these presents that I James
 J Ellison of the County of Placer and State of
 California do hereby locate a ditch to carry
 the waters of the South Fork of Indian Creek
 in said County upon mining ground upon the
 banks of said stream, said ditch is to take the
 water from said stream at a point on the west
 side thereof, about $\frac{3}{4}$ of a mile above the dam
 of William McShaffer by means of a dam and
 flume 20x16 inches and to carry said water
 for mining purposes upon the banks and bars of
 said stream between said point and the said
 dam of William McShaffer and the undersigned
 claims the right to enlarge this said ditch and
 flume when he may think proper so to do this
 under my hand this 3^d October A.D. 1862

James J Ellison

Filed and Recorded October 3^d A.D. 1862 at
 4 o'clock P.M. at request of J. McShaffer
 McShaffer Recorder
 J. C. Williams S. J.

Notice is hereby given that I have taken up
 and claim all of the water of Santa Gualter in
 Indian Creek Township County of Santa Clara
 and I intend to convey the same by ditch along
 down said creek and gulch for mining purposes
 and to sell to miners & others
 Indian Creek ~~Land~~ } Daniel Attinger
 June 13th A.D. 1884 }

Filed & Recorded June 13th A.D. 1884 at 3 O'Clock P.M.
 A. J. Goomes
 Recorder

Notice
 That I the undersigned do claim the water un-
 -ning in the south fork of Indian Creek and intend
 taking the same out at this place through a flume
 30 inches wide and 2 feet deep and ditch 36 in-
 -ches wide and 2 feet deep: to extend down the south
 bank of main Indian Creek for mining and ear-
 -ogating purposes said ditch to carry 700 hundred
 inches of water under a four inch pressure this the
 sixth day of May 1872

James A. Johnston
 Filed and recorded May 6th 1872
 at 11. A.M. J. J. Foster
 Recorder

This Agreement made the 22^d day of July AD 1872
by and between Richard Silcox of Indian Creek
County of Trinity of the first part and Manuel
Rabbit and Antonio Rodriguez of the second part
Witnesseth the said party of the first part covenants
and agrees to and with the parties of the second
part, to furnish them the second one hundred
and fifty inches of water when it is in hardship
to work out their claims also not to back the
water above the northern boundary of the land
this day purchased of Manuel Rabbit or to
seep water or to work himself above said northern
boundary also to build a road to the ranch
and the said parties of the second part cov-
enants and agrees to pay unto the party of
the first part one fourth of all the gold
taken out of their claims with said water
Also said Manuel Rabbit agrees to do all the
plowing that can be done on said road and

for the true and faithful performance of
all and every of the covenants and agreements
above mentioned the parties of these presents
bind themselves each unto the other in the pen-
sum of One hundred dollars as fixed and
settled damages to be paid by the failing party.
In Witness Whereof the parties to these pre-
sents have hereunto set their hands and seals
the day and year first above written
In presence of
W. S. London
A. K. Earl.
R. Silcox (S) of the first part
Manuel Rabbit (S) of the second
Marcellino Bargas (S) part.

Recorded at request of Rich^d Silcox July 23
1872 at 8.30 A.M.
Jas. G. Trotter
"Recorded"

- Water Notice -

William Morris et al. / South Fork of Indian Creek

Water Location.

Notice is hereby given that we the undersigned have this day located, located and claim one hundred and fifty (150) inches of water measured under a four inch pressure of the South Fork of Indian Creek in the County of Trinity and State of California to be taken from said stream at a point where this Notice is posted about 150 feet North of log house known as the Smith & Morris Bros. cabin -

Dated on the ground this 9th day of January A. D. 1891 -

Wm Morris }
John Morris } Locators -
D. R. Smith }

Recorded at the Request of Masonrd Thayer
January 15th 1891 at 35 min. past 3 P. M.

B. A. Crowl, Recorder
By C. W. Young - Deputy -

Notice of Appropriation of Water.
North Fork of Indian Cr.

John Fratus

The undersigned claims two hundred {200} inches of the natural flow under a four inch pressure of the waters of the North Fork of Indian Creek for mining and irrigating, to be conveyed in a ditch from a point at a live oak tree about 500 yards above Johnson's Dam, to my place known as the Fratus Ranch situated on the North Fork of Indian Creek, Trinity County, California

Dated this 18, day of March 1893.

Witness to my sign

Geo. L. Smith.

John ^{his} X Fratus.
mark

Recorded at the Request of John Fratus.

March 18, A.D. 1893 at 10 min. past 5. P. M.

Fee 85¢ ✓

R. L. Carter Recorder
By Geo. L. Smith Deputy.

11
B. S. Guptill et als.

Notice of Water Location.

200 inches

Indian Creek.

Notice is hereby given that we the undersigned have this day located, and claim two hundred inches (200) of the first flow of the water of Indian Creek with four (4) inches of pressure to each individual inch of water in the head box.

This claim is located on the north side of Indian Creek and about four hundred (400) feet below J. A. Johnston's lower or Montev ditch; and about seven hundred feet (700) below or down Indian Creek from the mouth of second Gulch, said water to be used for irrigating and mining purposes

B. S. Guptill
J. B. Siegfried.
Wm Morris.

Recorded at the Request of Wm Morris -
July 3, A.D. 1893 at 55 min past 10. A. M.

Ex 11, 20 ✓

R. F. Carter Recorder
By Geo Smith Deputy

APPENDIX 2: Mining Claims

Copies of Original County Records

Notice

We the undersigned claim five mining claims of about one eighth of a mile above the south Bank of Indian Creek and one hundred on the lower or west side by James Wallace a distance of Five Hundred feet and we intend to work the same as soon as practicable

Indian Creek
May 6th 1862,

Richard Mendenhamer
James Morris
Henry Sanborn
George Burns
Charles O'Connell

Filed and Recorded June 25th 1862 at 11 o'clock
AM at request of A. M. Knutson

Mc F. Griffin Reader
J. C. Williams S. J.

Notice

We the undersigned claim one mining claim on the South Bank of Indian Creek about half a mile above the town, said claim is founded on the upper or east side by a claim formerly owned by Wells and now owned by Johnston and Lubell and extends therefrom down or westward a distance of one hundred feet

Indian Creek

April 2nd 1862

L. S. Richardson

Filed and Recorded June 25th 1862 at 11 1/4 o'clock
AM at request of A. M. Knutson

Mc F. Griffin, Reader
J. C. Williams, S. J.

The undersigned claim three Mining Claims on the South Bank of Indian Creek about one mile above the Town, for Mining purposes and the intend to work the same as soon as practicable. Said Claims are bounded on the upper or East side by a line running into the Bank known as the Point Bent and extend downwards or West to the boundary of Mills Claim also commencing at the Bluff Rock in the bank of the Creek and extending back into the hill without limit. Said Claims are designated by Notices on the East and West Boundaries

Indian Creek. 3
 October 17th 1862 3

Patrick O Connell
 David O Connell
 Timothy Reading

Filed and Recorded October 20th 1862 at 10 O'clock
 A. M.
 M. J. Griffin Recorder.

July 27th 1863

M. S. Griffin

Recorder

By W. H. Gray Depty

July the 24th 1863

This is to certify that I have this day sold to John Sharper & Christian Wimmingson a certain Mining & bank claim. Located on the North Fork of Indian Creek & known as the Piefel Bar. For Value Recd. My right and title

Witness J. W. Smith }

Geo. Grumb

Filed and Recorded July 29th A.D. 1863 M. S. Griffin Recor.

By W. H. Gray Depty

I now all men by these Presents that I George Reinhold have this day sold all my right title & interest in and to a certain Mining claim Situated on Indian Creek situated just above the junction of the South & North Forks of said Creek & on the North Fork on the South Side. Said Claim is one undivided third of Claims known as Cronk & Corn. Claims to William Roder for and in consideration of the Sum of (\$40.00) Forty Dollars the receipt whereof is hereby acknowledged.

Indian Creek Trinity Co State of California July 27th 1863 Witness, John Schaben George Reinhold

Filed and Recorded July 29th A.D. 1863

M. S. Griffin

Recorder

By W. H. Gray Depty

Know all men by these presents, that I the undersigned on this the 20th day of July 1861, have sold and delivered my whole interest in certain Mining Claims Situated on Indian Creek, Elbert County And described as follows, to wit; bounded on the East by the Claim known as the Patrick O'Connell & Co Claim, on the West by the Morris & O'Connell Claim, the same being located in the bed of said Indian Creek the said interest consisting of the entire four Mining Claims in Consider of Having received the sum of two hundred & fifty dollars from Joseph Calder & Hugh gave him all my right title and interest in said Mining Claims.

Witness my hand & seal
at New York
this 20th day of July 1861

Manuel & Mariano
Munk
Mariano
Munk

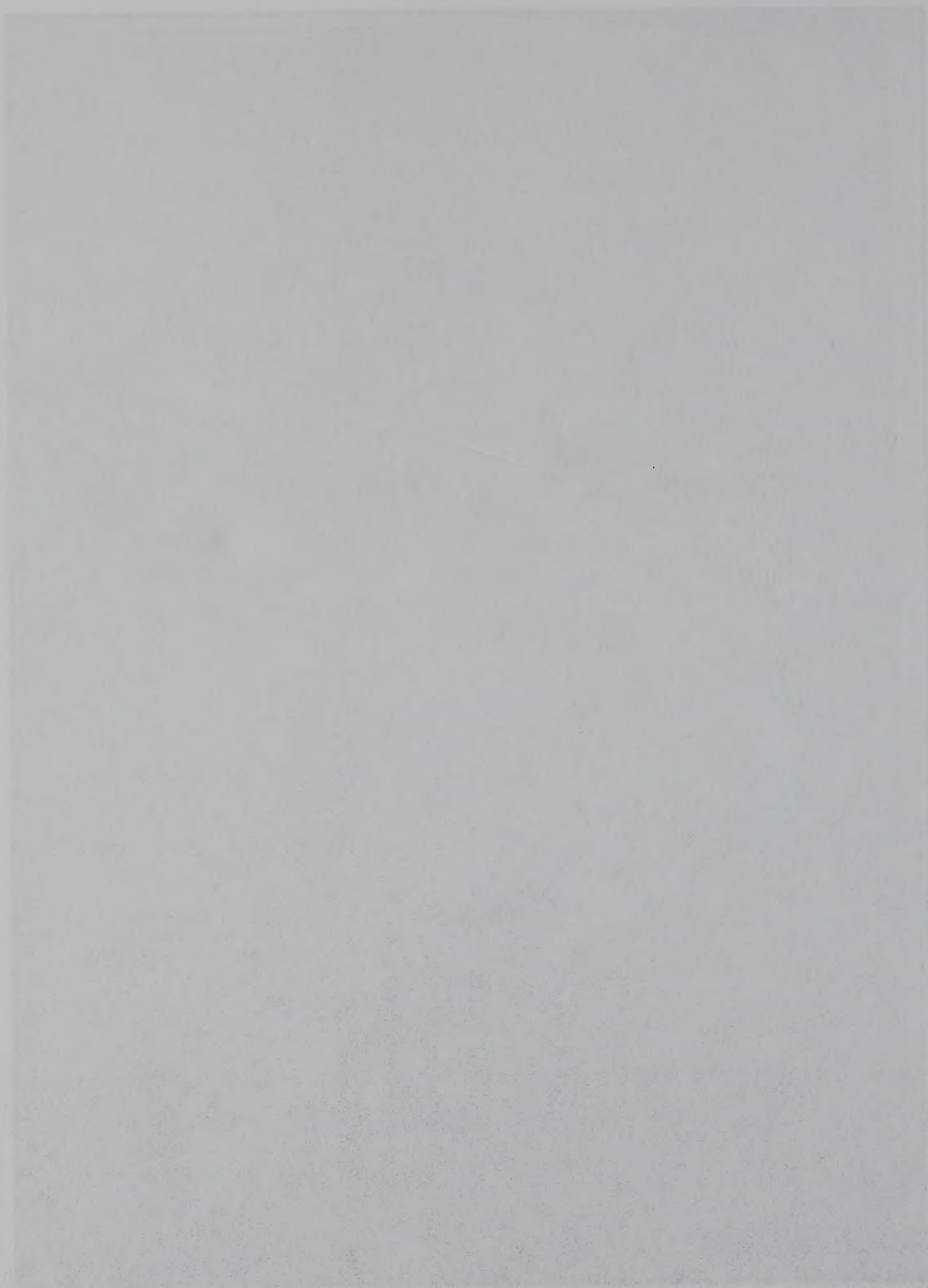
Included in the above Sale are all the Mining tools & sluice boxes belonging to said Claims, also the two Mining Cabins and gardens thereto belonging with the appurtenances all & sundries

Witness my hand
N. B. Stodard

Manuel de Munk
Indian Creek July 20 1861

Filed & Recorded July 22^d 1861

A. J. Lovings
Recorder



APPENDIX 3: Proof Of Labor

Copies Of Original County Records

FILING NO.

Proof of Labor.

State of California, } ss.
COUNTY OF TRINITY

Proof of Labor.

Before me, the subscriber *Antoni Rodgers*
personally appeared, known to me to be the person that he represents himself to be, and,
being first duly sworn, deposes and says that at least one hundred dollars' worth of labor
or improvements have been made upon or for the benefit of the Mining Claim known
as the *Norris Placer* Mine, consisting of
5 days work fitting up the claim and 24 days work
mining the ground for gold

the total cost of which has been \$ *100.00* situated in the
Indian Creek Mining District, County of *TRINITY*
and State of California, during the year ending with December, *A.D. 1899*
Such expenditures have been made by or at the expense of *this affiant and*
his co-claimant Frank Orante
the owner of said claim, for the purpose of holding said claim, under the provisions of
Chapter Six of Title Thirty-two of the Revised Statutes of the United States and the
regulations thereunder.

Antoni Rodgers
Subscribed and sworn to before me this }
29th day of *December* 189*9*. }

W. S. Loden

Notary Public

Proof of Labor.

State of California, }
COUNTY OF TRINITY. } ss

Before me, the subscriber H. M. Hall
personally appeared, known to me to be the person that he represents himself to be, and,
being first duly sworn, deposes and says that at least one hundred dollars' worth of labor
or improvements have been made upon or for the benefit of the Mining Claim known
as the Ridge Place Mine, consisting of
work upon the Indian Creek Ditch to mine the claim

the total cost of which has been \$ 100.00 situated in the
Indian Creek Mining District, County of Trinity,
and State of California, during the year ending with December, A. D. 1900.
Such expenditures have been made by or at the expense of The
Indian Creek Mining Company, a corporation
the owner of said claim, for the purpose of holding said claim, under the provisions of
Chapter Six of Title Thirty-two of the Revised Statutes of the United States and the
regulations thereunder.

H. M. Hall

Subscribed and sworn to before me, this }
31st day of December 1900. }

W. S. Lowden

Notary Public.

Proof of Labor.

896

State of California, }
COUNTY OF TRINITY. } ss

Before me, the subscriber H. M. Hall
personally appeared, known to me to be the person that he represents himself to be, and,
being first duly sworn, deposes and says that at least one hundred dollars' worth of labor
or improvements have been made upon or for the benefit of the Mining Claim known
as the Indian Creek Place Mine, consisting of
work upon a sluice flume upon the claim

the total cost of which has been \$ 100.00 situated in the
Indian Creek Mining District, County of Trinity,
and State of California, during the year ending with December, A. D. 1900 .
Such expenditures have been made by or at the expense of the
Indian Creek Mining Company a corporation
the owner of said claim, for the purpose of holding said claim, under the provisions of
Chapter Six of Title Thirty-two of the Revised Statutes of the United States and the
regulations thereunder.

Subscribed and sworn to before me, this }
31st day of December 1900. }

W. S. Lowden
Notary Public.

AFFIDAVIT OF LABOR.

State of California.

County of Trinity. ss

N.B.Fields, being first duly sworn, says, that at least one hundred dollars worth of labor and improvements has been made upon or for the benefit of each of the following named placer mining claims, during the year ending with December A.D. 1913.

The Big Jin, the Indian Creek, the Consolidated, the Fields & Hedrick, the Curtis, the Rogers, the Ridge and the Tammesett Placer Mining Claims situate in Indian Creek Mining District, also the Spoiler Consolidated, the Old Crow, the Barley Field, the Silver and the Old Bailey Placer Mining Claims, situate in the Douglas City Mining District, Trinity County, California: that said labor and improvements consists of running tunnels and open cuts, sinking shafts building dam, at head of ditch on South Fork of Indian Creek, cleaning, repairing and extending the Indian Creek ditch, prospecting and doing other development work upon and for the benefit of said claims, the total cost of which was not less than \$1200.00

That such expenditures was made by or at the expense of this affiant the owner of the above named claims, for the purpose of prospecting, developing and maintaining possession title to said mining claims in compliance with the mining laws and regulations thereunder.

Signed: N.B.Fields,

Subscribed and sworn to before me

this 31st day of Dec. 1913.

R.H.Garber, County Auditor.

(SEAL)

Recorded at the request of N.B.Fields,
December 31st 1913 at 10 min.past 11 A.M.
Fee \$.50

[Signature].....Deputy.

1877-1878

1877-1878

APPENDIX 4 : Historic Ledger Pages From Dr. David B. Fields

(From Archives with the Trinity County Historical Society)

Mining -

away	801	1904	
Munro	175.00	Dec 24-1904	Dr Doubleday 237.50
Boring River	8.80	Jan	" " 454.75
Knight	2000		
Rosier	2500		
Keefe	32.50		
Blair Rob	1000		
Joseph	300		
at Wolf	20.00		
at Wolf	24.00		
D. S. Doubleday	330.00		
" " "	106.75		
" " "	70		
May 4	Feb		
W. J. Co	1000		
Chas. Hunt	600.00		
Ed. Meek	250		
W. L. Louden	300		
at Wolf	30.00		
at Wolf	23.00		
Feb 22			
Dr. E. Lively	500.00		
Exp. 35			
Silby Smelting	400		
Express on sample	1.15		
26 Exp 1			
Dr. E. Lively	500		
Silby S + L	8.00		
W. H. Hall	100.00		
W. H. Gorham	4200		
" 22	500		
W. Collins			
29	CH Edwards	500	

8 290

1905

Point Lookout Mining Co

J

May 24 65 cash on hand 500.00
July 1 " " 500.00
Aug 22 60 Mr. Collins 500.00
Sept 9 " John Rodgers 10.00
SEP 11 1905 " Harriet Collins 100.00

Trans

OCT 28 1905

Point Lookout Mining Co.

NOV 24 1905	To Cash Payment	500.00
DEC 1 1905	" " Dr 2 Leds	50.00
DEC 22 1905	To Mr Walling Labor	50.00
DEC 29 1905	" John F. Rodgers Labor	100.00
DEC 31 1905	" Mr Walling Leds	100.00
JAN 1 1906	To Assay exp	4.70
OCT 28 1905	To exp sample	1.35
NOV 5 1905	Silby St L Co	8.00
NOV 15 1905	John Montgomery Survey	67.70
NOV 17 1905	John F. Rodgers	30.00
NOV 28 1905	John F. Rodgers	121.38
DEC 4 1905	J F Rodgers	132.50
" 19	Exp labor on 112 L.	75
DEC 20 1905	Porter & Co Freight	73.02
" "	Exp & Hooley Labor	3.64
JAN 26 1906	J F Rodgers	10.00
FEB 1 1906	J F Rodgers	38.40
" "	Silby St L Co	120.44
FEB 17 1906	" "	75
MARCH 20	Mrs. Dietrich	4.00
" "	Silby St L Co	4.00
" "	Exp labor exp	10.75
" "	A menial team	18.00
MAR 23 1906	Francis Rodgers	23.50
MAR 30 1906	John Williams	63.90
" "	Ed Rydman Shirts	3.50
APR 12 1906	The Cornish Sillier	265.2
" "	Mr Wallace	6.00
APR 15 1906	Exp labor on exp	3.90
APR 17 1906	John Rodgers hauling	6.50
APR 23 1906	Henry Morris	5.00
" "	Boys Oil house	1.50
MAY 2 1906	Trinity W. J	130.00
MAY 3 1906	C. & White Freight	33.35
" "	Joshua Knudsen Machine	64.45
" "	Exp labor exp	5.00
" "	Exp labor on exp	1.90
MAY 23 1906	J F Rodgers	25.00
" "	" "	36.33

1906 7069
1870.09
3

John William Ind. Curk.

1906

Mar 30 1906 To cash

Aug 20 1906 " " "

SEP 17 1906 " Cash

OCT 4 1906 " " "

June 20 " R^x " Rooming

Sept 17 " " " sm

" 18 " " " "

" 19 " " " "

" 25 " R^x " "

Oct 1 To " " " "

" 3 " Tel R^x " "

Sept 12 " Ex for h & w

OCT 25 To Cash

63.90

100.00

200.00

50.00

2.50

2.50

2.50

2.50

2.50

2.50

2.50

1.00

432.40

58.35

490.75

SEP 17 1906 By Work 466.75

OCT 26 1907 " " "

24.55

490.75

Indian Pick Mine Co Conf

To Day & Hally 35.80
 To each Bullard 49.50
 To each Bullard 127.30
 To each Bullard 49.50
 To each Bullard 20.00
 To each Bullard 37.77
 To each Bullard 464.28
 To each Bullard 143.72
 To each Bullard 46.12 1/2
 To each Bullard 200.00
 To each Bullard 20.00
 To each Bullard 22.95
 To each Bullard 114.51
 To each Bullard 189.75
 To each Bullard 2.50
 To each Bullard 33.00
 To each Bullard 40.00
 To each Bullard 40.00
 To each Bullard 26.78
 To each Bullard 536.30
 To each Bullard 361.75
 To each Bullard 223.95
 To each Bullard 497.25
 To each Bullard 200.27
 To each Bullard 36.32
 To each Bullard 36.50
 To each Bullard 38.50
 To each Bullard 100.00
 To each Bullard 120.50
 To each Bullard 40.00
 To each Bullard 25.00
 To each Bullard 13.00
 To each Bullard 20.35
 To each Bullard 30.00
 To each Bullard 119.50
 To each Bullard 25.00
 To each Bullard 60.00
 To each Bullard 25.00
 To each Bullard 45.24

Aug 22 By leather 5852.74
 " 22 By leather 2237.22
 NOV 12 1907 By leather 3790
 8123.86

1905 Book

Aug 3 10 a.m.
 " 9 60 "
 " 14 "
 " 17 "
 " 28 "
 Sept 4 "
 " 11 "
 " 17 "
 " 18 "
 " 24 "
 " 18 "
 Oct 7 "
 " 14 "
 Dec 8 "
 " 9 "
 " 10 "
 DEC 20 1905
 JAN 18 1906
 May 7 To ex
 June 6 To ex
 " 16 "
 July 3 "
 " 17 "
 Aug 2 "
 " 16 "
 " 17 "
 " 18 "
 " 20 "
 " 28 "
 SEP 28 1905
 1912 Sept 3 50
 " 4 "
 " 4 "
 1918 June 29 50
 July 1 2 "
 " 21 "
 " 19, 1909

87

Carroll 9911.38
 T. S. Co. 126.89

259

1900	Eldred	420	175
	Douglas	420	710
	B. R. Brown		100.00
	Douglas City		615
	Manly		850
	John		112.50
	Bram R. B.		88.00
	"		1500
	"		300
	Dryson		1000
	Rodgers		500
	Blaney		9000
	Douglas City		570
	S. J. John		1000
	Rodgers		109.00
18 1909	V. J. Thomas		7.00
21 1909	E. J. Thomas		2.50
29 1909	F. J. John		140.90
29 1909	Ellis		4.50
31 1909	W. D. P. T. J. J. J.		2.15
32 1909	S. J. J.		2.50
32-0	Indian Creek Blaney		5.25
36 1909	S. J. J.		30.50
38 1909	Blaney		2.50
41 1909	Rodgers		400
42 1909	Manly		9.50
23 1909	Manly		1000
23 1909	Blaney		1000
24 1909	S. J. J.		30.50
24 1909	S. J. J.		9.50
24 1909	S. J. J.		6.00
28 1909	Rodgers		387.87 1/2
28 1909	Manly		2.00
28 1909	Manly		3.50
28 1909	Culbertson		8.30
28 1909	Interest		2.46
	"		
			11582.45

Jan. 1, 1909 -
 From \$1681.45

Mc. Jones Squaw River
 Indian Creek Ditch, Rainwater P. J. Ryan June 7/4-
 Sept 13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31
 Cleaning Ditch Sept 18-20-21-22-23-24-25-26-27-28-29-30-31
 First S.C. 8/26/41 with P. Langley - 168

1919

Indian Creek Mines & Douglas City

	To Rent Dams		Oct 29 By Board	48.20
	Rodgers Water 1910-19		" Cash Frank Rogers	11.80
Nov 9	To Rent " 1919-20	60.00	Nov 7 By Cash	
" 7	" Land 1869	2.00	Auton Rodgers	
Nov 23	To Laborer	6.00	for Water & Land	10.00
Dec 1	Taxes C&F	6.00	Nov 16 Rodgers A. Water	30.00
" 1	" D&J	36.60	Rodgers F. Water	30.00
" 1	" D&C	19.50		
Sept 20	Shovel axle & handle	8.00		
Oct 7	State Camp Dist	50.00	Nov 12-21 Total	67.02
Nov 1	Gingely P	103.57	10 7P-	622 670
" 3	Williams John	5.75		67.32
Oct 16	2 Carter Shovels	5.00		50.00
" "	1 18" axle	4.00	Jan 11-22 To Cult Policy	6.71
" "	1 8" File	3.00		
" "	3 6" "	3.00	Dec Ind Creek	1923.77
" "	26 8" 6d. nails	.88	Ryan P. J.	12.00
Nov 19	Schaffer Bros	500.00	Feb 25 Marshall Bros	16.75
	Indian Creek Tax	99.00	Auto Hire Bill	35.00
	Samuel & Co.	2.00	Lumber Sch.	70.00
Dec 3	Gingely P	67.50	Rodgers Bros	25.00
" 22	Yell Rent R	143.88		2077.62
31	Rollins	290.00		98.00
	House & Fuel	9.04		1978.02
" 31	Morris Labor	3.50	Hamilton F	5.01
Jan 3	P. Gingely	9.00		1983.02
Nov 13	Cash 2500	6.75	March 16 H. L. Louden	5.00
Dec 1	Nails Gingely	5.00	April 22-24 C. G. Clement	28.00
Jan 19	G. V. Day	6.50	June 24 Louden & Carter	4.70
" 17	Colburn	55.00	July 27 Gingely P	31.50
" 5	Day & Son	4.00	July 28 Newcome Al	132.00
" 27	John Williams	292.50	" 28 Clement C	20.00
" 27	"	60.00	Sept 1-21 Schaffer Bros	61.02
Feb 7	P. Gingely	51.25	Nov 9-21 Samuel Wilkin	5.00
March 1	"	69.75	Nov 16 Rodgers Bros	91.00
" 1	Lumber	4.00	Dec 5 Taxes	99.00
		1923.77	" 17 R. C. Marshall	13.50
			" 23 State Camp Dist	17.00

170 Mark began May 16-22
 Mansfield, 23 days

Cont Douglas City + Indian Creek mines

May 12	G. G. G. G.	18.75
" 13	State Camp Drs	50.00
June 9	Abbott & House	75.00
" 14	Ryan & Hall	125.00
" 28	Stapley & Hanson	31.70
" 28	John Williams	102.00
" 28	Rodger "	136.00
" 28	Mrs John Miller	96.60
July 1	B. J. Ryan	100.00
" 7	John Marshall	18.85
" 17	Ryan & G.	22.00
" 21	G. B. Gordon	104.00
Aug 5	B. B. Buegley	53.75
" 5	Al. Carter	4.20
" 10	May Williams	46.25
" 10	Roger "	74.00
" 10	John "	76.50
" 11	G. B. Gordon	72.00
" 15	Wassonville Supply	72.80
" 25	M. Williams	115.50
Sept 10	Rodger Williams	100.00
" 10	John "	99.00
" 20	State Drs	65.80
Oct 13	Williams M	5.50
" 20	G. G. G. G.	4.00
Nov 4	Rodger Williams	64.00
" 4	John "	74.25

31.70
102.00
136.00
108.85
104.00
74.00
76.50
72.00
115.50
100.00
99.00
65.80
5.50
4.00
64.00
74.25
1756.40
22.50
1778.90
1327.30
96.60
46.25
1470.15
49.50
1420.65
1421.00

July 16-23 R. M. Collins 1756.40
 22.50

McDevitt R. J. called Oct 17-26
 State Camp Drs

Drugs
 July 27 Brande P. 9.80
 14.15

